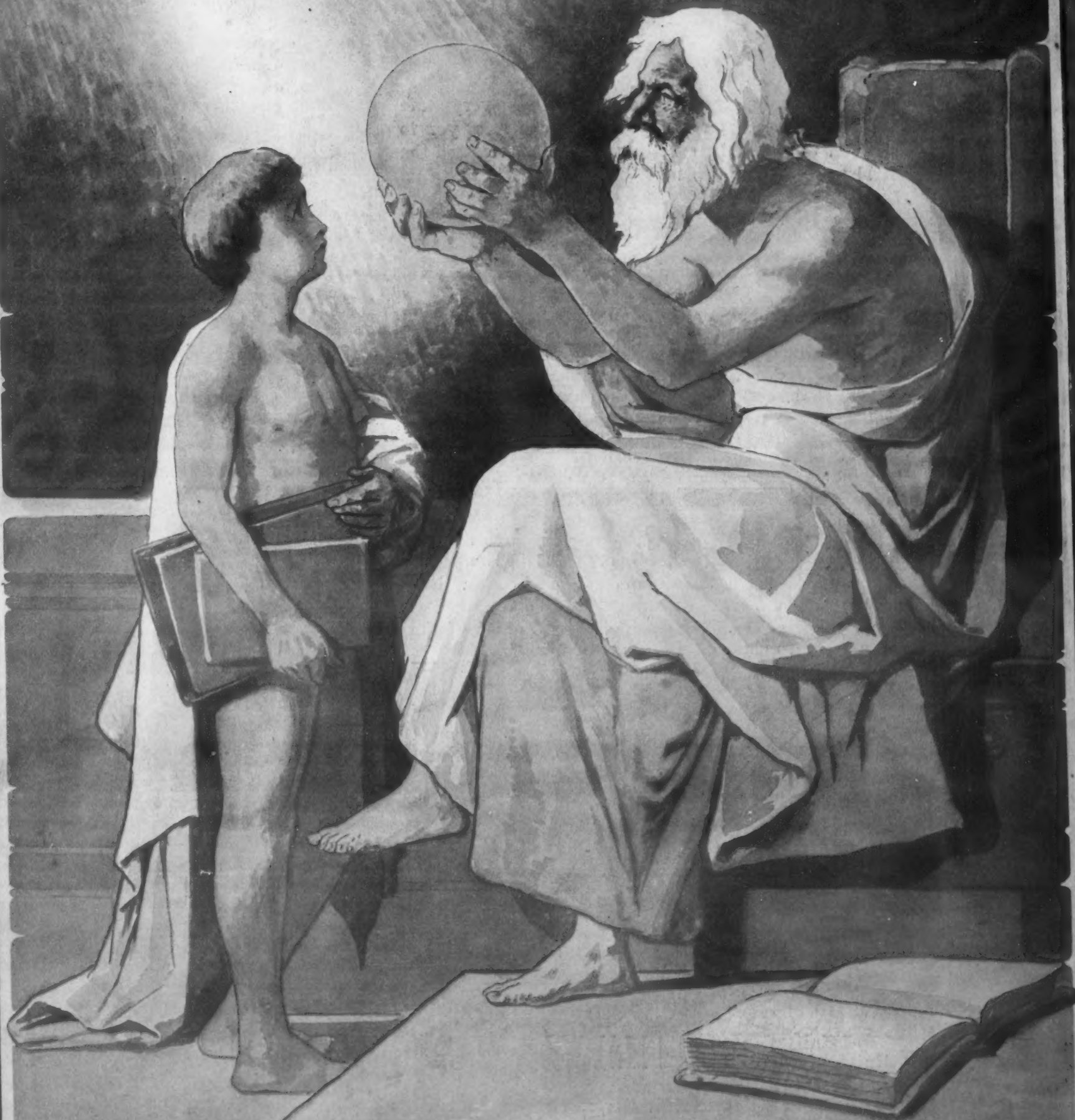


L
11
A56

THE AMERICAN School Board Journal

A PERIODICAL OF SCHOOL ADMINISTRATION



New York
Chicago

William George Bruce, Proprietor. Milwaukee Wis.

It's Best to Buy Manual Training and Domestic Science Equipment and Supplies from Us

Because—

We have been equipping schools and colleges in every state in the Union for a great many years and can refer you to any of them to prove the excellence of our service and the reasonableness of our prices. We invite you to write us for the name and address of a school near you that we have equipped.

Expert Assistance. All our departments are in charge of experts in their respective lines—men whose judgment has been tested and proved correct by years of success. Our engineering department will gladly give you the benefit of its knowledge and experience in laying out and installing machine shops, foundries, forge shops, Manual Training shops and Domestic Science Equipment. Consult us freely.

Immense Stocks. The largest and most complete of any in the country. You can get everything you need from us at one time and in one shipment—from a saw to a forge, or a small cake pan to the most elaborate Domestic Science Table.

Reasonable Prices. A large proportion of the equipment and supplies that we sell are made in our own factories. Our immense buying power enables us to sell you all other supplies at extremely low prices. We say without fear of successful contradiction that, quality considered, our prices are always the lowest.

The 1913 Red Book is Just off the Press. Write for a copy today. Everyone interested in the buying of Manual Training or Domestic Science equipment or supplies should have a copy of this well known Reference Book.

We do an enormous volume of business at this time of the year and there is the possibility of a stock, even as large as ours, temporarily becoming depleted. We therefore suggest that you send your order in at once and avoid all possibility of delays.

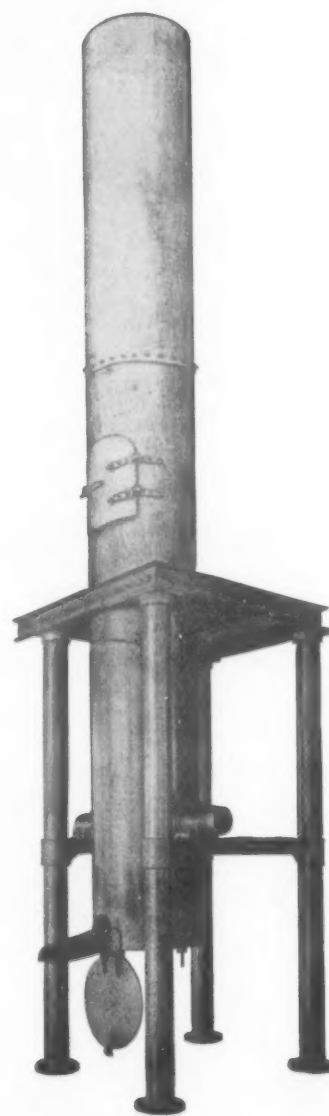
ORR & LOCKETT

Established 1872 **L HARDWARE CO.**

14-16 West Randolph St., Chicago



DOMESTIC SCIENCE TABLE
with Gas Attachments



ECONOMICAL CUPOLA



No. 155 BENCH (Special)
Showing Patent Locking System

To give your tax payers the "best run for their money," you will do well, before buying

Blackboards

to send for our free booklet on "How to Judge, How to Specify, How to Install Blackboards," and to let us submit a quotation on your requirements.

This puts you to no obligation, but gives you valuable information.

Penna. Structural Slate Co.

Pell Bldg., Easton, Pa.



Reliability Assured

Careful selection of raw materials, proper construction and fitness of design for your special requirements determine the efficiency of

GRAND RAPIDS School Furnishings

The Dependable Kind

Manual Training — Drawing — Domestic Science — Laboratory — Special Furniture

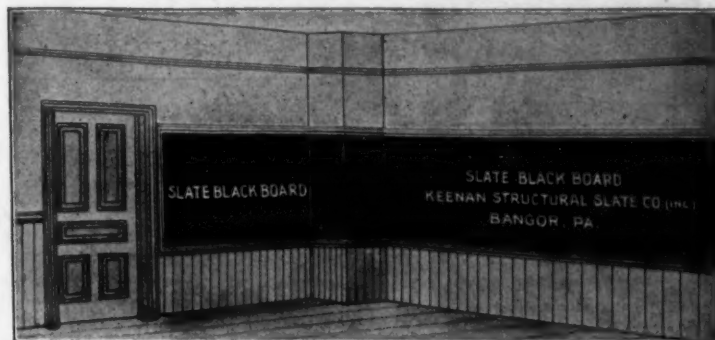
Send for Catalog No. 23

GRAND RAPIDS HAND SCREW CO.
1428 Front Ave., N. W. GRAND RAPIDS, MICH.

Natural Slate Blackboards

Best for Teacher
Best for Pupil
Best for School Board

Write for booklet and learn why

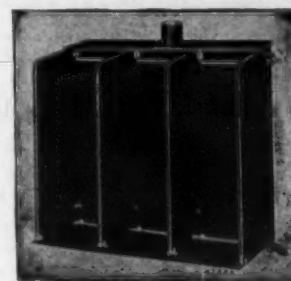
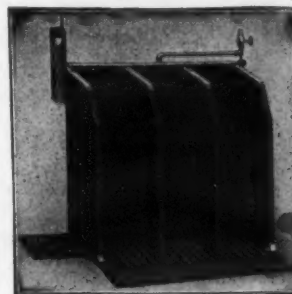


VENTILATION and SANITATION

absolutely necessary in Schools and Public Buildings

THE "KEENAN" KIND

Sanitary Slate Fixtures accomplish both



Keenan Structural Slate Co.

Suite A, 1st Nat'l Bank Bldg.
BANGOR, PENNA.

Write for large illustrated Catalog "B"

WHATEVER YOU DO BE SURE TO GET YOUR BENCHES FROM THE



Manual Training Bench No. 15

RELIABLE MANUFACTURER OF

Manual Training Benches

FOR EVERY TYPE OF INDUSTRIAL AND TRADE EDUCATION

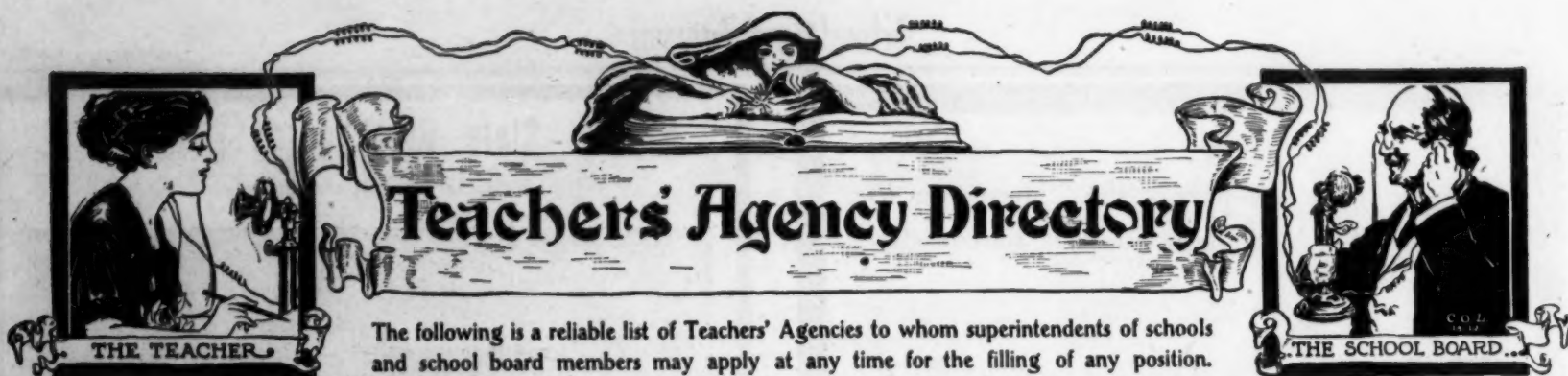
Get Our Catalog

C. CHRISTIANSEN

Manufacturer of Benches

2219 Grand Avenue

CHICAGO, ILL.



The following is a reliable list of Teachers' Agencies to whom superintendents of schools and school board members may apply at any time for the filling of any position.

The Fisk Teachers' Agency

SUITE 814-823, 28 EAST JACKSON BOULEVARD, CHICAGO
Over 38,000 Positions Filled 30th Year
Why employers should come to the Fisk Teachers' Agency:
BECAUSE it has the largest membership of high grade men and women.
BECAUSE its endeavor is to find for each position not merely some fairly suitable candidate, but the fittest candidate available. The employer wants to find the best person with the least trouble in making his search. This Agency seeks primarily to satisfy the employer rather than find a place for an unemployed candidate.

ADAMS SCHOOL and OFFICE BUREAU

364 Peoples Gas Building, CHICAGO, ILL.
We can supply school boards and superintendents of schools with a complete line of teachers from Kindergarten to College. Free Registration.
J. PORTER ADAMS and PETER A. DOWNEY, Managers

CONTINENTAL

TEACHERS' AGENCY, Bowling Green, Kentucky
has INCREASED in earning power and service over 100% in four years, after having been operating twelve years. It has done this by pleasing BOARDS. It registers teachers FREE.

MANUAL ARTS BUREAU OF AMERICA
The only teachers' agency in the U. S. dealing EXCLUSIVELY in Manual Arts and Vocational subjects.
Manual Training, Drawing, Domestic Economy
W. H. BOWEN, Manager. 333-4-5 Hood Bldg. BIRMINGHAM, ALA.

NORTHWEST TEACHERS' AGENCY

T. B. HANNA, A. M., Mgr.
North Yakima, Wash.
Operates throughout the Northwest. The SUCCESSFUL APPLICANT AND CERTIFICATE LAWS Free to members. Half rate enrollment fee without extra commission.

SOUTHERN TEACHERS' AGENCY

COLUMBIA, S. C.
Covers the South. Places all classes of teachers. Recommends to School Boards. Great demand for Specialists. Write for "A Plan."

THE BREWER TEACHERS' AGENCY

1302 AUDITORIUM BUILDING, CHICAGO

NORTHERN TEACHERS' AGENCY,

12 Roberts Street, FARGO, N. D.
The demand for good teachers at good wages in all schools is constant in this north-west. You will like to teach here. Now is the time to enroll.
Write us today for blanks and literature.

W. L. STOCKWELL, PRESIDENT. State Supt. 1908-11
MRS. MATTIE M. DAVIS, MANAGER. 14 years Co. Supt. Cass Co.

THE B. F. CLARK TEACHERS' AGENCY

Chicago, 413 Steinway Hall. Lincoln, Neb., 1st Nat. Bank Bldg. Spokane, Wash., Chamber Commerce Bldg.
Vacancies from the University to the grades. 25th Year

AN AGENCY THAT RECOMMENDS
is valuable in proportion to its influence. If it merely hears is something; but if it is asked to recommend a teacher that is more. Ours
THE SCHOOL BULLETIN AGENCY, O. W. BARDEEN, SYRACUSE, N. Y.

ALBANY TEACHERS' AGENCY

These things count when School Officials Desire Good Teachers and when Good Teachers Desire Advancement. They will count in helping YOU. We are Not a Free Registration Agency. Ask for Bulletin 20
HARLAN P. FRENCH, Prop. 81 CHAPEL STREET, ALBANY, N. Y. VINCENT B. FISK, Mgr.

INTERSTATE TEACHERS AGENCY

501-503 Livingston Bldg. ROCHESTER, N. Y.
We visit Colleges, Normal and Public Schools, and select our candidates by personal observation.
T. H. ARMSTRONG, Proprietor.

The Yates-Fisher Teachers' Agency

PAUL YATES, Manager 624 So. Michigan Ave., Chicago

The Pratt Teachers' Agency

NO. 70 FIFTH AVENUE, NEW YORK

RECEIVES calls at all seasons for college and normal graduates, specialists, and other teachers in colleges, public and private schools, in all parts of the country.
Advise parents about schools. WM. O. PRATT, Manager

HEADQUARTERS For TEACHERS OF
Manual Training
Household Economics
Commercial Branches
Physical Education
School Supervisors
The Albert Teachers' Agency
633 Wabash Ave., Chicago, Ill.
Established 27 Years
THE OLD RELIABLE

FIRST-CLASS TEACHERS RECOMMENDED

For every department of school work. Confidential information furnished regarding applicants. Notify us of your vacancies Today. In case of emergency, wire at our expense.

THE ROCKY MT TEACHERS' AGENCY

EMPIRE BLDG. DENVER, COLO.

The best way to secure a thoroughly competent Superintendent or Teacher, is to write Superintendent H. E. KRATZ, Manager of
SCHOOL AND COLLEGE BUREAU
21 E. Van Buren St., CHICAGO
His services cost Boards of Education nothing. He has a splendid list of Superintendents and Teachers from which to select.

THE McCULLOUGH TEACHERS' AGENCY

J. F. McCullough A Successful School and College Bureau Geo. T. Palmer
Placing the right teacher in the right place is our business. The attainment of highest efficiency in this particular is our ideal. When in need of teachers write us. We will give you a square deal. We handle only direct calls from school authorities.
80 E. JACKSON BLVD., CHICAGO, ILL.

Manual Training
Domestic Economy
Drawing
Commercial
Agricultural
When wanting a teacher of an industrial subject employ an industrial teachers' agency. We supply industrial teachers exclusively.
Wyatt Industrial Teachers' Agency
E. M. Wyatt, Mgr. 631 Harvard St., HOUSTON, TEX.

THE NORTHWESTERN TEACHERS' AGENCY

Managers: H. McLean, A. L. Robertson
204-05 Providence Building, DULUTH, MINNESOTA

CENTRAL EDUCATIONAL BUREAU,

J. RICHMOND, Manager
St. Louis County Bank Building, Clayton, ST. LOUIS, MO.
A Thoroughly Endorsed Teachers' Agency

The TEACHERS' EXCHANGE

OF BOSTON, 120 Boylston Street
Recommends TEACHERS, TUTORS and SCHOOLS

COLORADO TEACHERS AGENCY

Operates thruout the entire West. ESTABLISHED 1898
Rooms 329 Railway Ex. Bldg., DENVER, COLO.
FRED DICK, Ex-State Supt., Mgr.
EASTERN OFFICE, HARRISBURG, PA. SOUTHERN OFFICE, ATLANTA, GA.

The Thurston Teachers' Agency

FINDS POSITIONS FOR TEACHERS. PERSONALLY RECOMMENDS TEACHERS.
FINDS TEACHERS FOR POSITIONS. ESTABLISHED 18 YEARS.
Anna M. Thurston, Mgr. 623 So. Wabash Ave., Chicago E. R. Nichols, Ass't Mgr.

SCHERMERHORN TEACHERS' AGENCY,

353 Fifth Ave., NEW YORK
Oldest and best known in U. S. Est. 1888.
CHAS. W. MULFORD, Proprietor.

WE SUPPLY EXCLUSIVELY TEACHERS OF
MANUAL TRAINING
DOMESTIC ECONOMY
COMMERCIAL BRANCHES
PHYSICAL TRAINING
ATHLETICS
Also recommend Athletic Coaches who can teach academic subjects. The University of Wisconsin took eight of our men. More than a third of the State Universities selected our candidates.
The Specialists' Educational Bureau
ROBERT A. GRANT, Mgr.
WEBSTER GROVES, ST. LOUIS, MO.

"GO AFTER" YOUR TEACHERS

You will secure better ones than by considering only those who apply to you. We can help you locate them. We will send you typewritten, bound reports regarding candidate's academic and professional education, teaching experience, certificates, age, health, personality, discipline, tact, expressive power, enthusiasm, loyalty and popularity. Isn't this kind of service worth trying? Write us regarding your vacancies today.

BUSINESS-MEN'S CLEARING HOUSE, DENVER

Teachers' Agencies.

The Hazard Teachers' Agency

Established 1892. Active business in all Northwestern States. Right Methods and Terms. Uses only Direct Calls from Employers. Makes Direct Recommendations. Send for our new Booklet.

Minneapolis, Minn.
317 KASOTA BUILDING
Spokane, Wash.
MADISON HOTEL BLDG.

Dewberry School Agency Motto: "The Right Teacher in the Right Place."
Twenty-one years' experience. R. A. CLAYTON, Manager, Birmingham, Alabama

RELIABLE TEACHERS' AGENCY
612-613 Majestic Bldg., Oklahoma City, Oklahoma
A high class agency for high class teachers. We solicit correspondence with school officials needing the best teachers. Prompt, efficient. Write us.
L. CREGO, or MRS. L. CREGO, Managers

School Boards in need of the most efficient Superintendents, should write for descriptive lists of superior candidates. :: :: **The Interstate Teachers' Agency,** Macheca Building, New Orleans.



The GEM PENCIL SHARPENER

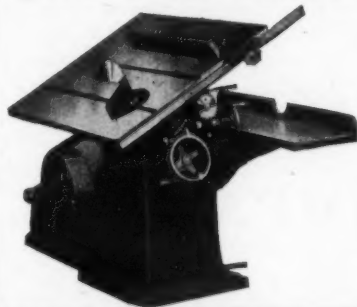
Sharpens Both Lead and Slate Pencils

You can point a pencil very nicely with your knife when it is sharp. When it is not—and lead dulls it very quickly—it will break the lead. Any machine with steel cutting edges or knives will act just the same. That is one reason for the failure of many machines. They are not practical. We claim that ours is practical and would like to have you try them.

Price \$3.50. Send for descriptive circular.

Manufactured by F. H. COOK & CO., Leominster, Mass.

Give Your Students An Opportunity



to use practical wood working machines that are giving satisfaction in the most up-to-date and progressive factories. CRESCENT machines are the kind you should buy.

Send today for complete catalog telling about our splendid line of band saws, saw tables, jointers, shapers, planers, planers and matchers, borers, disk grinders, variety woodworkers, Universal woodworkers, swing saws.

THE CRESCENT MACHINE COMPANY
6 Columbia St. LEETONIA, OHIO

Bemis Standard Bench



MANUFACTURERS OF

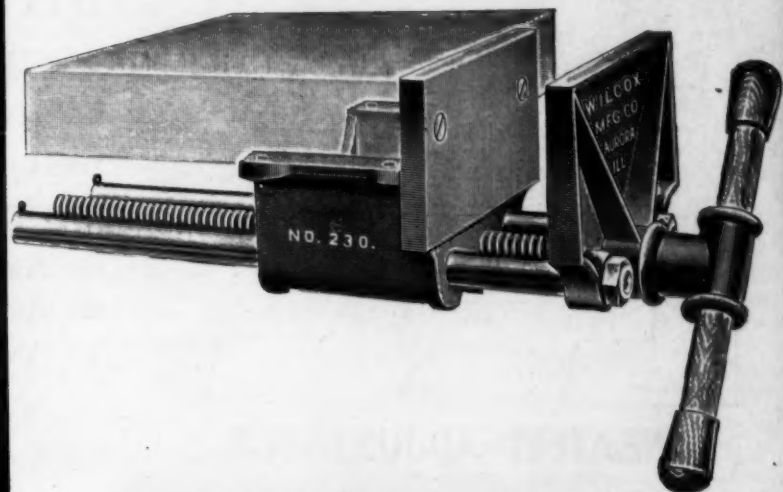
Manual Training Benches

DRAWING AND DOMESTIC SCIENCE TABLES
CASES AND GENERAL EQUIPMENT

CATALOGUE FREE

A. L. BEMIS,

5 Cypress St. Worcester, Mass.



RICHARDS-WILCOX RAPID ACTING VISES

for manual training work have stood the all important test of

PRACTICAL USE

and are today used by hundreds of schools with complete satisfaction.

Instantaneous adjustment - - continuous in action. Phosphor Bronze nut engages entire circumference of screw and operates entire length. No pawls, racks or triggers to break or wear.

The Richards-Wilcox Rapid Acting Vise is the most perfect operating Vise made ---let us prove our statement.

Write for sample and detailed information.

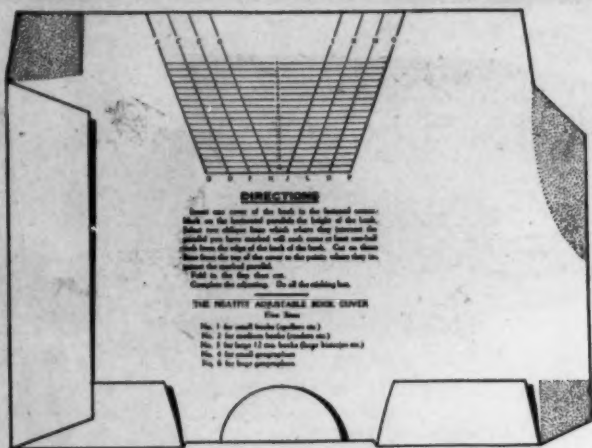
We also make a select line of benches especially equipped for manual training work.

Richards-Wilcox



MANUFACTURING CO.
AURORA, ILL. U.S.A.





NEATFIT-ADJUSTABLE

We invite you to examine the NEATFIT-ADJUSTABLE. If you do so, we believe you will agree with us that it is the "best for the money" on the market.

The NEATFIT-ADJUSTABLE cover is not new. It has been used for several years in many representative cities and has given entire satisfaction. IT WILL SUIT YOU.

We will be pleased to send you samples and prices on request. We can guarantee you prompt delivery if you will send us your order before the Fall rush begins.

THE NATIONAL BOOK COVER COMPANY
SYRACUSE, N. Y.

Mr. Superintendent---

The time when it was necessary to demonstrate to you the value of BOOK COVERS is past. You now recognize that they are "worth the price,"

- (a) As the most practical means of keeping the book clean.
- (b) As lengthening the life of the book, and hence,
- (c) As a factor in the cost of books in general.

You are going to use covers — OF COURSE YOU ARE. The only question with you is, WHAT COVER?

The NEATFIT-ADJUSTABLE (patented) is a one-piece cover, perfect in fit, easy to put on, fully adjustable and presents an absolutely unbroken surface. It has no weak points which can be torn or pried open by pupils. The stock is strong and as near waterproof as paper can be made.

Noiseless School Furniture

Write
for
Catalog
"H"



THE NO-NOISE

Write
for
Catalog
"H"

When you invest your money or the public funds, you choose a SAFE, RELIABLE, TIME-TESTED Institution.

The A. H. Andrews Co. have been manufacturing School Furniture for 49 years. Many of the desks sold in the early days are in use today. If you are not familiar with our record ask your neighboring School Board.

The A. H. Andrews Co.

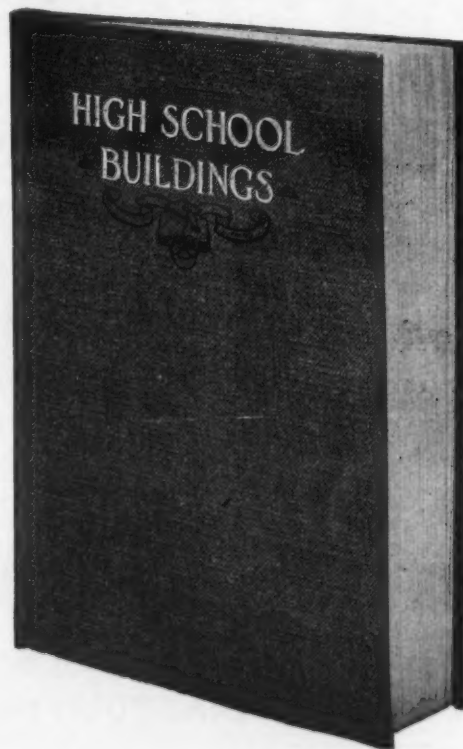
"Oldest, Largest and Best"

115-117 So. Wabash Ave.
CHICAGO, ILL.

New York 1165-71 Broadway San Francisco 728 Mission St. Seattle 508-512 1/2 First Ave. So.

High School Buildings

By WM. C. BRUCE



Write for Prices and Sample Pages to

The American School Board Journal

211 Montgomery Bldg.

Milwaukee, Wis.

SCHOOL JANITORS AND HEALTH

By Dr. Helen C. Putnam

Health habits educate more than
health maxims

Price \$1. postpaid

Payment must accompany order
Write for special rates
American Academy of Medicine Press
Easton, Pa.



Before you buy Desks, Globes, Charts or
Supplies, write for catalog to

L. A. MURRAY & CO., Kilbourn, Wis.

SILICATE VENEER PLATE
BLACK BOARD

IF there is anything on earth
that will please you, it is
Silicate goods. Used constant-
ly thirty-nine years in all the
public schools in New York,
and all the principal Boards of
Education in the large cities.
We guarantee every ship-
ment. They are the best made
goods. Send for our illustrat-
ed catalog.

Manufactured only by the
N. Y. Silicate Book Slate Co.
20-22-24 Vesey St., New York

School Boards! Self Setting PLANES

Sent On
Trial



School Board, says:
"BEST THEY EVER HAD."

Elyria, Ohio, November 25, 1912.
GAGE TOOL CO., Vineland, N. J.

Gentlemen: Replying to your letter of the
21st inst., I beg to ask that instead of returning
to us the little balance you say is to our credit
please send us as per your suggestion one iron,
complete (including the clamp and binder).

The planes we ordered came to hand in due
season and were found to be all right. OUR
MANUAL TRAINING TEACHER SAYS THEY
ARE THE BEST WE EVER HAD.

Yours truly,

Elyria City Board of Education.
S. S. Rockwood, Director.

GAGE TOOL CO., Vineland, N. J.

HIGH SCHOOL BUILDINGS

By WM. C. BRUCE

See page 4 this issue

THE AMERICAN School Board Journal

WM. GEO. BRUCE, Proprietor
FRANK M. BRUCE, Publisher

WM. C. BRUCE, Editor
W. J. LAKE, Eastern Manager

OFFICES

Publication Office:
129 Michigan Street
Milwaukee, Wis.

New York:
9084 Metropolitan Life Bldg.
Chicago:
53 W. Jackson Blvd.

Vol. 47

AUGUST, 1913

No. 2

TABLE OF CONTENTS

	Page
Cartoon—The School Board's Dilemma.....	7
Trade Schools in the Public School System (Glynn).....	8
The Salt Lake City Convention (Bruce).....	9
Teachers' Pension Legislation in Massachusetts (Hamilton).....	13
School Engineering: Its Necessity (Ellingwood).....	15
The New Order in Sacramento (Spears).....	17
New School Building Designs.....	19
Editorial.....	24
Waynesboro High School.....	26
Ventilation of New York Schools.....	28
Dr. Finley, Commissioner.....	29
School Board News.....	30
Vocational Education in Massachusetts.....	34
Delaware's New Commissioner.....	35
Among Superintendents.....	36
For Busy Superintendents.....	38
School Law.....	40
New Rules.....	42
Manual Arts Studies.....	43
Book Reviews.....	44
Textbook News.....	46
Among Bookmen.....	47
New Superintendents Appointed.....	48
Forms for Standardizing School Reports.....	50
School Trade Notes.....	53
Extended High-School Session.....	54
Building News.....	58
Schoolroom Humor.....	64

Copyright, 1913, by Wm. Geo. Bruce. Title Registered as Trade
Mark in United States Patent Office.

Entered as Second Class Matter in the Post Office at
Milwaukee, Wis., under Act of Congress of March 3, 1879.

EDITORIAL MATERIAL—Manuscripts and photographs
bearing on school administration, superintendence, school
architecture and sanitation, and related topics are solicited.
Unavailable material will be promptly returned. Contribu-
tions should be mailed to Milwaukee, direct, and should be
accompanied by stamps. Open letters to the editor must in
all cases contain name and address of writer (not necessarily
for publication) as evidence of good faith.

SUBSCRIPTIONS—Price, One Dollar per year. Canada,
\$1.35. Foreign, \$1.50. Single copies, 15 cents. We find that
a large majority of our subscribers prefer to have the journal
continued at the expiration of their subscription so that their
files may not be broken. The month of expiration is stamped
on every wrapper as a reminder of the renewal. Notice of
discontinuance must reach our Milwaukee office at least fifteen
days before date of expiration with full balance paid to date.

Classified Advertisements

The rate of advertising per in-
sertion under this heading is 20
cents per line of six words. Five
is the minimum number of lines
accepted for one insertion. 10%
discount on insertions of three
months and over.

Payable only in advance with
order.

School Desks for Sale.

A stock of used adjustable and non-
adjustable school desks in four sizes
and in splendid condition, will be sold
at a sacrifice by a school board in Ohio.
In such quantities as may be desired.
Address Box 45, 4 American School
Board Journal, Milwaukee, Wis.

IMPORTANT NOTICE.

Publishers, and School Supply Manu-
facturers.

An established Southern School Sup-
ply Company of good reputation desires
to act as depository for reputable school
book publishers. Will also consider
anything new in school equipment and
supplies. All correspondence confiden-
tial, if desired. Address Southern
School Supplies, care School Board
Journal.

Solicitors Wanted.

Anyone can earn a very good salary intro-
ducing Read's Self-holders for Pens and
Pencils. They are new and good, and are
received with enthusiasm wherever they
are shown. They do teach children to hold
their Pens and Pencils. They are reason-
able in price. Liberal commission. Write
to Charles Read, 1909 Myrtle Ave., Brook-
lyn, N. Y.

For Sale.

Because of changes in the manual train-
ing courses in the high school the Board of
Education of Wilmington, Delaware, offers
for sale a complete Forge Shop Equipment,
consisting of 1 24-inch Blower, 1 48-inch Ex-
haust Fan, 1 Drill Press, 24 Anvils and a full
complement of Sledges, Hammers, Tongs
and Tools, for the accommodation of
twenty-four pupils. Will be sold cheap.
Address inquiries to Harry J. Guthrie, Sec.
of Board, or Geo. W. Twitmyer, Superin-
tendent of Schools.

SCHOOL BOARD LIBRARY

A Model Schoolhouse by J. A.
Pavlista, Secretary Board of Educa-
tion. A northlighted schoolhouse
with individual toilet rooms for each
classroom. Price, 15 cents.

Vacuum Cleaning of Schoolhouses
by Thos. D. Perry. The first report
on an authentic test made by a Board
of Education. Price, 15 cents.

**The Oakland School Building In-
quiry** by Charles H. Cheney, Archi-
tect. Why Oakland, Cal., favors the
one story fire-proof building. Price,
15 cents.

Manual Training by Frank H. Sel-
den. A vital subject discussed from
the executive point of view. Price,
35 cents.

**The Lighting and Ventilation of
Schools** by W. L. Nida. An ex-
periment in Top-Lighting of Class-
rooms at River Forest, Ill. Price,
10 cents.

Carbon Dioxide and Ventilation
by Glen Edwards. A few facts every
Board Member ought to know. Price,
5 cents.

**The Scientific Basis for Ventila-
tion Standards** by C. E. A. Wins-
low, Curator of Public Health, Amer-
ican Museum of Natural History.
Price, 10 cents.

Address

FRANK M. BRUCE,
Publisher

129 Michigan St., Milwaukee, Wis.

DE PREE'S
FORMALDEHYDE
FUMIGATOR



Patented June 30, 1903; Aug. 29, 1905; Oct. 25, 1910
This cut one-quarter actual size

Perfect Disinfection of School Rooms

Obtained through the use of
The De Pree Formaldehyde
Fumigator.

EFFICIENT, CONVENIENT ECONOMICAL

All rooms in school building
can be fumigated at the same
time.

We will positively guarantee you
satisfaction on a trial order.

Fill out this coupon and mail to
THE DE PREE CHEMICAL CO.,
802 Chamber of Commerce,
CHICAGO, ILL., and receive free
sample and information.

Name

Address



PAPER TOWELS LIQUID SOAP

Disinfectants — Cleaning Preparations — Sanitary Appliances

American Sanitary Products Co.

ST. PAUL, DETROIT, WINDSOR, ONT.

Significant Adoptions

St. Paul, Minnesota
High Schools

will use

**Gunnison and Harley's
CICERO'S ORATIONS**

Other Important Adoptions are { State of Utah
State of Oregon

Sacramento, Cal.; Columbus, Ga.; Wilmington, N. C.; University of Michigan; University of California; State Normal School, Kirksville, Mo.; State Normal School, Clarion, Pa.

The Gunnison and Harley's CICERO'S ORATIONS is the most complete, satisfactory and economical edition available. It contains the six required orations, the oration Pro Marcello and Selections for Sight Reading; all the Grammar and Prose Composition required; Notes, Vocabularies, Introduction, and the most superb illustrations ever given in a Latin text for school use. 543 Pages, \$1.25.

Silver, Burdett & Company

Boston New York Chicago San Francisco Atlanta Dallas

The Basis of Education

for elementary schools is presented in modern, attractive and successful form in the following New Books:

READING

The Haliburton Readers

Five books ready

ARITHMETIC

Watson & White's Arithmetics

3-book series — 2-book series

LANGUAGE

Manly-Bailey Language Lessons

Oral and written composition and grammar

SPELLING

The Richards' Spellers

Two books that get results

HISTORY

Bourne & Benton's History

Introductory American History
History of the United States

CORRESPONDENCE INVITED

D. C. HEATH & CO., Publishers

BOSTON

NEW YORK

CHICAGO



Test Questions in Arithmetic
and Language



Thompson's Minimum Essentials

From the Journal of Education, May 22, 1913

"The town of Leominster, Massachusetts, Thomas E. Thompson, superintendent, attains virtually 100 per cent in accuracy, leads other cities in speed, and secures great results in reasoning along arithmetical lines. This would have little weight as a mere statement of opinion, but all that we have claimed has been demonstrated through the Courtis test. Mr. Courtis of Detroit, whose tests have attained international renown, has tested the schools in ten states including many of the largest cities, and in his report says that the schools of Leominster rank highest of all the cities he has tested in accuracy, in the amount of work done in a given time, or speed.

"Can it be that these results were accidental? Was it just luck? Did the children of Leominster chance to capture this national honor?

"Let those who will believe that it was accidental. But I have seen the work in Leominster as I have in thousands of other schools, and I have no question that the results are due to Mr. Thompson's methods of practice in every grade on minimum essentials."

An investigation of "Minimum Essentials" will repay you. Send for sample sheets.



Ginn & Company

Boston
Atlanta

New York
Dallas

Chicago
Columbus

London
San Francisco



Now Out From Press!

The Black Davis Practical Physics

\$1.25

A book that meets the demand for a course that shall render the study of physics more significant and of greater practical value to the student.

This book starts with the common things of the home, the farm and the city, and builds the science of physics around them.

*If you are interested in the subject, you
will certainly want to see this book*

The Macmillan Company

Prairie Avenue and 25th Street

CHICAGO, ILL.

School Board Journal

Founded March 1891 by WILLIAM GEORGE BRUCE

Volume XLVII, Number 2

AUGUST, 1913

Subscription, One Dollar per Year



THE SCHOOL BOARD'S DILEMMA

Trade Schools in the Public School System

By FRANK L. GLYNN, Director Trade Instruction in Public Schools of New Haven, Connecticut

Recently there has been a great deal of discussion as to the whys and wherefores of the teaching of manual arts, home making, and vocational pursuits of an industrial nature in our public-school systems. For any reality of worth or effectiveness it has mainly ended with mere discussion when considered from the point of view of specific trade training for industrial purposes.

The State of Connecticut stands as a leader in this field, having passed over the discussionary stage and dealt with immediately the actual solution. Its beginning was through the efforts of Mr. Charles D. Hine, the Commissioner of Education for the State, by whose investigations the State Legislature made a special appropriation for the establishment of experimental schools, his idea being that the best method of working out a system was by actually attempting it rather than to merely analyze from a purely theoretical point of view. There were two experimental schools established in the state a little over three years ago, one in New Britain, and the other at Bridgeport. Both of these schools have been operating under the same general plan, with the purpose in view of offering specific training in selected trades, covering in so far as possible the equivalent of the old apprenticeship, which has of late years been entirely lost. The course for this instruction covers a period of 4800 sixty-minute hours of approved training. The time devoted covers an eight to nine hour day, five and one-half days a week, fifty-two weeks a year, allowing two weeks each year of vacation for apprentices, foremen, and other teachers, known to us by the factory term of employees.

The ideals of the school are to maintain a complete factory organization, engaging men who are primarily skilled mechanics, rather than certificated graduates from pedagogical or other training schools. Not that the teacher's training is of no value by any means, but that primarily the preference should always be made to the man who has an accurate and skilled working knowledge of his trade, rather than to one who has a smattering of it with a broad educational appreciation. In order to have a man or woman teach to advantage, he or she must have a working knowledge of the trade to be taught.

The work covers the following departments:

- Day School.
- Continuation School
- Half-time School
- Secondary Co-operative Course.
- Evening School
- Vacation School
- Special Courses.

In the day school several trades allied with manufacturing, building, contracting, graphic arts, and textile occupations are taught. The relation of the purely academic training with the actual trade instruction is twenty-five per cent for the former and seventy-five per cent for the latter, the academic work consisting of mathematics, drafting, science and general courses in industrial development, while the trade training consists of the allotted time covering the entire period of the course being given to one trade pursuit.

The general plan of organization is that each shop teacher be provided a unit of fifteen to eighteen apprentices, who receive their entire instruction from him personally. There is no specializing of teachers by departments, to whom the apprentices go from one to the other, like piece-work in a factory, eventually to be

assembled after the completion of the time. It is necessary for each teacher to relate his academic instruction with the trade processes which he is teaching, and his trade instruction must be provided by a thoroughly systematized course of actual commercial production, which has the regular market valuation upon its sale or acceptance by the customer of all work. For instance, in the carpentry trade, boys are taught carpentry, not by exercises, nor model work, such as a pen holder, a chair, a book case, or an ironing board, but rather they go out into the city and build a five to six thousand dollar dwelling. This has already been done, and the house built last year in Bridgeport in a restricted section of the city has been sold, and is at present occupied, the boys being engaged in the building of another. From this production the entire scheme of academic training must be evolved, and daily the apprentices may be seen studying their mathematics sitting at a lumber pile, or in the half finished porch of the building, a steel square or the framing of the house as their textbook, entirely related with the experiences of the day.

This could be enlarged upon greatly, but is unnecessary, as the other trades are also taught in the same fashion. Apprentices in machine shops are building machinery for the market, and taking job work from factories; the printers are doing work for people in the city and municipal departments, while the girls are engaged in making hats and dresses for the open market. The proceeds from the sale of these products are applied to the maintenance of the school and amount to approximately \$800 to \$1200 per month, covering the entire expense of maintenance outside of teachers' salaries. It is hoped that in the near future considerable of these earnings may be turned over to the apprentices, on a regular apprenticeship wage scale.

The graduates have fulfilled entirely the expectations of manufacturers, superintendents, shop foremen and associate workmen. The big difficulty with our school system as at present organized is that a boy or girl may leave school at the age of fourteen, and yet is unable to enter any occupation until sixteen years of age. This trade school permits any boy or girl who is fourteen years of age or over to enter any day in the year from regular employment, or from any grade in the entire school system. One finds the fifth grade boy rubbing shoulders with the high-school graduate, the one being as good and skillful producer as the other.

The Continuation school is a course of theoretical instruction related to the trade followed, offered to apprentices already engaged in factory employment. It is entirely optional on the part of the factory, and attendance is voluntary on the part of the apprentice. The school training is offered one-half day a week to each individual, with different grades of apprentices attending from different factories at different periods. The training offered is in applied mathematics, drafting and shop science. The instructor has also to visit the factories at regular periods, so as to be in touch personally with the work in which the apprentice is engaged, so that he may better relate the school training with the individual needs and opportunities of the apprentices.

The Half-time Course consists of "week about" work of the apprentices. One week he is in the factory, the other week in the school as a regular day apprentice. Alternate weeks he is replaced by an alternate apprentice, two boys representing a pair, each one being a "running mate" to the other. This course is open to boys after they have completed 2400 hours of the

regular day-trade-school course. There has also been a fully rounded out apprentice course established in the factory, covering a period of time in each department of production, through which the half-time boy must go gradually. The main point, however, of this course is that the boys' actual employment in the factory is entirely under the supervision of the school.

The High-School Co-operative Course consists of an extension of the trade-school facilities, during the time when trade-school apprentices are engaged in academic training, to regular high-school students in the city secondary department who are taking the high-school industrial courses. This economizes their time, uses the equipment to its fullest efficiency, and puts what otherwise would be merely manual training on the high standards of trade requirements and production.

The Evening School, which is open six nights a week for forty weeks a year, offers training to all persons employed in the trade which they wish to study, for a period not longer than three evenings a week to each individual, covering a course of two years. This consists entirely of extension training, and is designed to meet the immediate wants of the applicant, regardless of the "course of study" with which many of our systems are limited and enshrouded.

The Vacation School is open during July and August for any student in the general public-school system who wishes to attend for any period of time convenient.

In addition to these regular courses and departments, special work is given for all who wish to enter for any special purpose. For instance, a man may enter at any time for a two-months' or three-months' course in machine shop practice, carpentry, printing, or whatever he may wish, while the women may take a special course in dressmaking. Special extension work is also offered in stationary steam engineering, which consists of evening instruction only in the school, while the engineer in charge is given ample time for supervision of those attending in their factory employment.

The success of this institution may best be shown by the fact that this entire plan and organization has only recently been adopted by the City of New Haven, which is to pass over even the experimental stage, and build upon the cumulative experiences of the Bridgeport experiment. It represents the most unique plan which up to the present time has been developed in America. The entrance requirements are merely that a boy or girl be fourteen years of age, or eligible to enter the high school. The teachers must each be skilled in his trade. The course will be 4800 hours, eight hours a day, five and one-half days a week, fifty-two weeks a year, with each employee an apprentice receiving two weeks vacation and legal holidays. It is not, however, to be misunderstood as a place for consigning people or committing those undesirable in the general elementary schools, but rather to create a school as in Bridgeport, where boys and girls will really want to be, with plenty of opportunity for physical, mental and creative activity, all pointing toward increased earning efficiency and advancement over apprenticeship.

The first year of the girls' training will be intensified along the lines of homemaking, and the second year be devoted to the special trade, whether it be cooking, plain sewing, dressmaking, costume design, ladies' tailoring, embroidering, lace making, candy making, jewelry, or such other trades as are adapted to girls. For boys, machine shop, woodworking, printing,

THE SALT LAKE CITY MEETING--1913

By FRANK M. BRUCE

If the question were asked me "Do you believe the Salt Lake City meeting one of the greatest of the fifty-one annual meetings of the National Education Association," I should answer in the affirmative. Judging entirely from results, I believe more tangible good was accomplished for the cause of education at Salt Lake City than ever before in the history of the Association.

The 1913 meeting of the National Education Association was remarkable:—

1. For the subjects of the general program.
2. For the practical departmental programs.
3. The quality of members attending.
4. The local hospitality and entertainment.
5. The entire absence of all politics.
6. The three committee reports.
7. The declaration of principles.
8. The positive help to the mountain states.

Of course, you might say "Isn't this true of any and every convention?" Well, so much is being said about "The passing of the N. E. A.," that it is interesting to dissect the Salt Lake City meeting just to quiet the calamity howlers and to shame the "stay-at-homes."

I was really very much surprised on Saturday previous to the opening, to find as I registered at the Hotel Utah—the headquarters of the meeting—the number of "big" men who had already arrived. Remember, we are not standing still and a new generation has come into power. One glance assured me that the Salt Lake City meeting would be a success. And it was.

Of course, the Ancient and Honorable Artillery better known as the "Old Guard" was again absent. The most striking thing about the attendance at Salt Lake City, was the fact that the young men, the "live wires," the men who are up and doing things, had not balked at the railroad trip, had not viewed the Salt Lake City meeting askance, but had bought their tickets, and started for the West, just as they started for San Francisco and Chicago to learn and teach in the great "educational clearing-house of the American people."

The Salt Lake City meeting was primarily a young men's meeting. It was a meeting of red blood and action. The older men who attended, were all men with whom age brings mature thought and a keen appreciation of the possibilities of youth. After all, destructive criticism and the passing of power should be no criterion for belittling the work of the young men in the Association. Just keep your eyes on them. It is purely a matter of brains and the Salt Lake City convention proved the quality and the quantity.

The Big Lesson of the N. E. A.

If the 1913 meeting of the Association teaches anything, its success irrevocably establishes the fact that the line of demarcation has now been established between the winter meetings of the Association and the summer meetings. That there will be a line of demarcation is evident from this.

The work of the summer meeting of the National Education Association for 1913 was primarily a statement of larger principles of education. These statements lead directly to the production of reports all of which are epoch-making in their importance. This logically points to the idea of action I mentioned above, and epitomizes the results accomplished by the new generation of schoolmen attending the Salt Lake City convention.

At Richmond, next February, the Department of Superintendence will meet in conjunction with the Department of School Administration, Professors of Education in Uni-



Secretary D. W. Springer and President E. T. Fairchild Entering the "Tabernacle" Grounds.

versities and Colleges, Normal Schools, etc., not to state principles but merely to exchange practical ideas of professional and executive school management and administration. You see the difference. The one a meeting to summarize the work of the year, and the other to suggest practical and hard-headed solutions to vexing local and personal problems.

I had not intended to consume so much time in this lengthy introduction. And yet it is only to emphasize the "big" idea to be gained from the Salt Lake City meeting so as to drive it home in your minds and the minds of all the members of the Association. Let me now establish my argument by proving to you that the Salt Lake meeting was really the greatest in the history of the Association. I will not start with the local hospitality though this properly belongs here. Let's get at "the play—that's the thing."

The General Program.

It is unfortunate indeed that in a report such as this only the exceptional things may be recorded and the hundreds of real good things worthy of note must be omitted. I will start by saying that Superintendent Carroll G.

Pearse of Milwaukee, the outgoing president, opened the general sessions on Monday, July 7, at 2:00 o'clock in the famous Tabernacle. With fitting grace he introduced the governor of the state and the mayor of Salt Lake City and our old friend State Superintendent A. C. Nelson.

It must have been a moment of supreme happiness for Superintendent Nelson to welcome the N. E. A. to his city and state, after following the Association so faithfully for years. In fact, no two men have been more faithful to the Association than State Superintendent Nelson and Superintendent Christensen of Salt Lake City. The long, dreary trip across the country to Salt Lake City was sweetened by the recollection of the number of times these two faithful men had traveled across the continent without a whimper.

President David B. Johnson of South Carolina, was splendid in his response to the addresses of welcome. President Edward T. Fairchild made a telling President's Address. He proposed certain changes in the organization, all of which later on in the week, materialized in the form of resolutions.

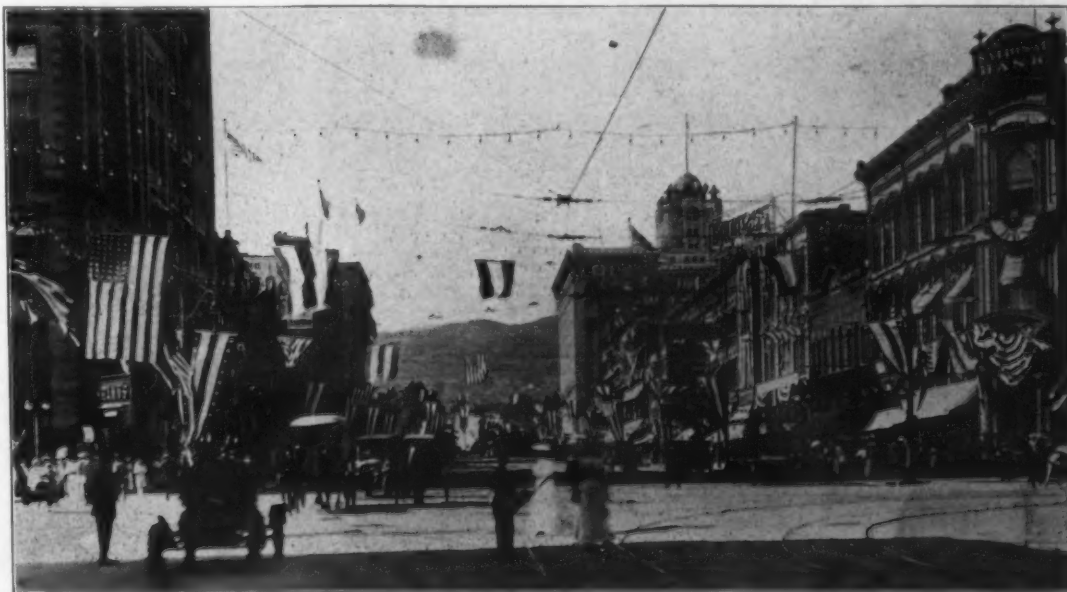
The Rural Schools.

Then followed the "keynote speech" of the meeting. Mr. M. P. Shawkey, State Superintendent of Public Instruction, Charleston W. Va., asked the question, "What Shall We Do With The Single-Room Rural School?" and it took the Association all week to answer it. So the convention started. The "Keynote" ran into every session and department and the rural school will gain untold benefit.

On Tuesday, Lee F. Hanmer of the Russell Sage Foundation made a notable talk on the "Schoolhouse Evening Center." On Wednesday, Supt. Alderman of Portland, talked on "Measuring Results." On Thursday, W. E. Chancellor of New York City, discussed "Some Social Uses of Education According to Nature." And so the week went on—one continual treat from A to Z.

I must say a word here about President Fairchild. His program was excellent. His rural school idea was most timely. He presided most graciously and was voted by all, one of the best presidents the Association has enjoyed. If the 1913 meeting of the N. E. A., was successful—and it was most successful—due credit must be given to the men who selected Edw. T. Fairchild at Chicago. Certainly he did his work very well.

I cannot go into the work of the many departments of the Association or attempt even a



MAIN STREET, SALT LAKE CITY, DECORATED FOR THE CONVENTION.

resume for you. You will be surprised no doubt when I say, that the departmental meetings of the Association were never so well attended as this year. The note-book teacher was there to get something for himself and herself and got it. The San Francisco and Chicago meetings in this respect were absolutely bad, the one due to politics, the other to the clamor of a big city.

The Local Entertainment.

And now I come to the most enjoyable feature of the Salt Lake City convention. "Hospitality" is a great word. No city, which ever entertained the N. E. A., brought out its meaning like Salt Lake City. Talk about concerts and oratorios and receptions. It was remarkable.

Certainly Superintendents Christensen and Nelson and the Utah Executive Committee won the admiration of all the visitors. The concert on Monday night and Haydn's Creation, on the University of Utah Campus, Thursday night, will never be forgotten. The Saltair and Walker receptions were an evidence of the goodfellowship which prevailed.

A word must here be said about the street decorations. Barring no city, the Salt Lake City decorations were the finest ever prepared for a meeting. An immense banner proclaimed:

*"Ye are the salt of the earth
But if the salt shall lose its savour
Wherewith shall it be salted?"*

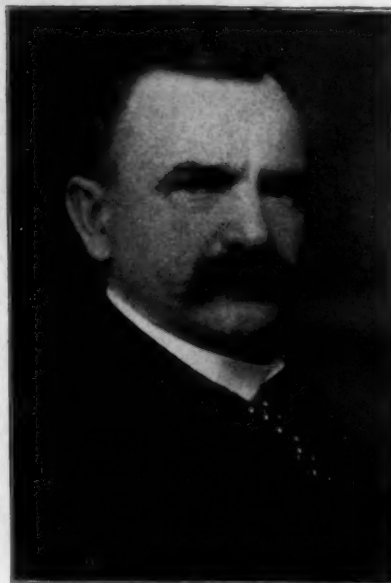
From the Great Salt Lake, of course.

The registration headquarters in the Keith-O'Brien building deserve more than passing mention. Imagine an empty department store in the heart of the city, turned into a post office, a registration headquarters, an exhibit place for school work of all grades, commodious rest rooms, etc. Excellent, I say, and nothing more.

Local Facts and Incidents.

The Salt Lake meeting was notable for a great many local facts and incidents. I shall mention but a few very briefly: In the first place this was the first meeting in the history of the Association which enjoyed financial support from the state. Think of it, the State of Utah voted \$7000.00 as a state appropriation and the City Commission added another \$2500.00 for the entertainment of the N. E. A.

Of course, this is not remarkable when it is recalled that 86 per cent of all Utah revenues last year were expended for education. The governor of the state in his welcoming address remarked that for 1913-1914 the budget would show 88.1 per cent expended for education. Do you wonder then, when I say the Salt Lake



PRESIDENT-ELECT JOSEPH SWAIN,
President of Swarthmore College, Pennsylvania.

City convention was the most notable in the history of the country?

The newspapers were kind indeed to the meeting. With the assistance of Mr. J. W. Searson of the Kansas State Agricultural College, Manhattan, Kans., all did remarkable work. When I think of Chicago and San Francisco and the treatment accorded the Association, I cannot say too much about Salt Lake City newspapers. After all, the world's greatest newspapers might well take an example from their modest brethren.

The Hotel Utah makes ideal convention headquarters. With about thirty state and special headquarters the Utah was taxed to its capacity. Nevertheless, there was never a word of complaint. Would we could always secure such headquarters.

The Church Services.

On Sunday preceding the opening of the convention the local clergy occupied each their own pulpits. This idea was excellent. Why should a clergyman surrender his pulpit on the very Sunday he can drive home a good forceful lesson. I think, the Salt Lake ministry are to be complimented for the stand taken.

A feature of the week was a Wild West show which paraded up and down the streets at almost all hours of the day. Imagine dignified educators crowding the brooks in the gutters (all gutters are brooks in Salt Lake City) watching boys as they were lassoed by the paraders and then stampede to "the Stampede" as it was called for a good reserved seat.

Just one more feature and I will pass to more serious things. Every visitor to the convention took a dip in Salt Lake on Tuesday, the day designated for Saltair. The temperature of the city had surpassed all records for several years and the N. E. A., floated in the salty brine in luxurious comfort.

Committee Reports.

But I must leave this trivial detail to get back to the important happenings of the week. First and foremost of course, there is the matter of reports which is most vital. The committees which reported are:

1. Teachers' Salaries and Cost of Living.
2. Grammatical Nomenclature.
3. Vocational Education and Vocational Guidance.

I made the point earlier that the committee work was most important. And so it was. Above all the salary committee ranks first. The report is not quite complete but merits even in its present form the closest study. Had I the space, I would discuss it here. I believe nevertheless, it deserves a great deal of study and Chairman E. S. Swain has rendered the teachers of the country a notable service.

The Grammatical Nomenclature report is remarkable because of the conditions of our grammars. Think of nine (9) different definitions of the same thing. Ridiculous, you say, and yet the committee so reported. The first page calls attention to the condition and the report is a most forceful argument. Get a copy and read the report. It is excellent.

Vocational Education.

The third report was that of the committee on vocational education. I think Chairman R. J. Fuller of North Attleboro, Mass., and his committee have done a timely piece of work in

1. Defining the philosophy underlying vocational education.
2. Setting up a justification for vocational education from the
 - (a) Economic point of view
 - (b) Social point of view
 - (c) Educational point of view
3. Raising questions and issues which require discussion and agreement.
4. Suggesting a possible outline for future report.

The committee proposes to publish a handbook which would be of value to any schoolman or school community seeking to introduce some form of vocational education.

"I believe," said Chairman Fuller of the committee, "that the work of this committee is one of the most important undertakings along sug-



A CORNER OF THE REGISTRATION DESK.



KEITH-O'BRIEN BUILDING, THE REGISTRATION HEADQUARTERS.



MEMBERS OF THE "NATIONAL COUNCIL", N. E. A., AFTER A SESSION AT SALT LAKE CITY.

gestive and helpful lines ever attempted by the N. E. A.

"We are not satisfied merely to define vocational education, but propose constructive policies in the solution of the problem. I believe that every schoolman of the country must consider most seriously this whole question of vocational guidance. This belief is based not alone upon the desire of an educator to present improvements for his work, but upon the fact that the manufacturer and the parent as well as society demand some form of continuation or vocational work especially for persons between the age of 14 and 16 years."

These three reports therefore, emphasize the work of the convention. There are no more important questions confronting school people than these. Here are suggested answers and solutions awaiting merely their acceptance by the American teaching public. This is the great work of the N. E. A., and characterizes the men who are today solving our great educational problems.

Statement of Principles.

Another remarkable work done at Salt Lake City was the presentation of a report by the committee on resolutions in the form of declarations. Of course, this is only the beginning of a great work which can be carried on year after year. The report as adopted is subject to future revisions, but is remarkable as a beginner.

Supt. Martin G. Brumbaugh, of Philadelphia opens the report by a statement of the problem. State Supt. Payson Smith, of Maine defines the place of the state in education. James H. Baker, President University of Colorado, discusses the university and college. J. G. Crabbe, President State Normal School, Richmond, Ky., defines the position of normal schools. Supt. Carroll G. Pearce, of Milwaukee, dissects "The City School System in American Education," etc. The report is a splendid contribution to the literature of the day on education.

The Annual Meeting.

And now I come to what in the past has always been referred to as "the politics of the meeting." Let me say right here that there were absolutely no politics at Salt Lake City. The 1913 business meeting of the N. E. A., will go down in the history of the Association as the most dignified, the most sane and business-like of many years. There never was a break in the entire proceedings. Once there was a ripple which proved so insignificant, it passed away as quickly as it came.

The appropriations of various committees and proposed changes in the organization were the most important matters to be discussed. In

reality the one is dependent upon the other. The proper organization would automatically define all work and the amounts of money available. President Fairchild's proposal of an advisory board is not sufficiently complete to cover the situation.

After some discussion it was decided to pro-rate all committees for work done. It is certainly unfortunate that the committee on health could not meet the committee of the American Medical Association which has \$2500.00 to discuss school work. Possibly the new administration will propose a complete reorganization for the more effective management of the affairs of the Association.

The Election of Officers.

Next to receiving and accepting the reports of the various committees was, of course, the election of officers. Supt. J. A. Shawan of Columbus, reported for the committee on nomination the unanimous choice of Dr. Joseph Swain, President of Swarthmore College, of Pennsylvania, for president, and Miss Grace M. Shepherd, State Superintendent Public Instruction of Idaho, treasurer.

The report was adopted without a minority report which for several years has disrupted the annual meetings. Peace and harmony reigned. It was certainly a relief to sit through this annual meeting and to vote for Dr. Swain and Miss Shepherd undisturbed.

This election of officers was, of course, preceded by various rumors of candidates originating from a variety of sources. Next to Dr. Swain the most notable educators mentioned were Z. X. Snyder, President State Normal

College of Colorado; L. R. Alderman, Superintendent of City Schools, Portland, Oregon; John R. Kirk, President of State Normal School, of Kirksville, Mo.; J. W. Crabtree, President of State Normal School of River Falls, Wis., and Miss Grace M. Shepherd.

Dr. Swain has for years been an active member of the Association. His most recent contribution to the work of the Association is of course, the report of the committee on "Salary and Cost of Living." Miss Shepherd's reelection was not only a tribute to her splendid personality, but to the general popularity she has gained with the members of the Association.

The Attendance.

The actual number of enrollments at Salt Lake City was disappointing. About 6000 memberships were taken out. Of course, the excursion idea has been entirely eliminated so that the attendance at Salt Lake City is entirely up to the average of the past few years.

There is no question but that the extreme distance had a great deal to do toward keeping away a great many Easterners. The New England people traveled the greater part of a week coming. In fact, the entire trip took them a full month, allowing for comfortable travel both ways.

The giddy school-ma'am who trails after the principal of her school was not at Salt Lake City. In years gone by, the N. E. A. excursion rates have enticed this personage to attend the summer meetings. The excursion rate is a thing of the past and the flocks of teachers who traveled because of them are gone.

In their place have come the ambitious teacher, superintendent and administrator who are doing things. The general and departmental programs were composed entirely of young men who have won their spurs and will do even greater things in the future.

The Next Meeting.

St. Paul Minn., was chosen for the next meeting place of the N. E. A. The final vote stood 27 for St. Paul, 11 for Atlantic City and 2 for Baltimore. Portland, Ore., and Atlanta, Ga., both bid for the convention but withdrew early in the game in favor of other candidates.

The new board of directors recommended that the 1915 meeting of the Association be turned into an International Congress of Education to be held at Oakland, Cal., in conjunction with the Panama-Pacific exposition. Of course, no final action could be taken in the matter but the recommendation will hold without question.

Secretary Springer must be complimented for the completeness of all his arrangements for Salt Lake City. Nothing was omitted that should have been attended to. Everything ran along



SUPT. D. H. CHRISTENSEN.
Official Host of the Convention.

so smoothly; it was never noticed that a new secretary was running things.

Of course, the efficiency of the Salt Lake City local committee with Superintendents Nelson and Christensen at the head was remarkable. I cannot say too much for these two men and their hospitality. If St. Paul next year can do just one-half of what Salt Lake City did this year the attendance should reach 40,000 without a question. Distance will be no item and the Middlewest will attend to a man.

Council of Education.

The work of the council this year was confined to the report of the committee on "Salaries and Cost of Living" and the work of the committee on "School Hygiene." Robert J. Ale, Orono, Me., was elected president and William Bishop Owen, principal of Chicago Normal School, secretary.

On Saturday the board of directors elected ten members to the National Council of Education, their terms to expire in 1919. The following were elected: S. D. Brooks, Okla.; G. A. Brown, Iowa; G. B. Cook, Ark.; A. S. Downey, New York; A. J. Kinnman, Ky.; A. C. Nelson, Utah; R. K. Purdan, Ind.; J. L. Snyder, Mich., and R. B. Teitrich, Pa.

The board also re-elected G. B. Cook of Arkansas, as a member of the executive committee and James M. Greenwood of Missouri, as a member of the board of trustees. J. Stanley Brown, of Illinois was selected chairman and J. Y. Joyner of North Carolina, secretary board of trustees.

Following vice presidents and State Directors were also chosen:

Vice Presidents—E. T. Fairchild, New Hampshire; A. C. Nelson, Utah; L. R. Alderman, Oregon; Mrs. Mary C. C. Bradford, Colorado; Luther R. Wright, Michigan; Mrs. Rose A. Bird Maley, Wyoming; Thomas W. Conway, New Mexico; L. N. Hines, Indiana; M. P. Shawkey, West Virginia; Miss Martha Stromberg, Maryland; Fred M. Hunter, Nebraska.



MISS GRACE SHEPHERD, Idaho, Treasurer;
MR. D. W. SPRINGER, Michigan, Secretary.

State Directors—Alabama, H. J. Willingham; Arizona, John D. Loper; Arkansas, Geo. B. Cook; California, Archibald J. Cloud; Colorado, James B. Ragan; Connecticut, Frank L. Glenn; Delaware, Theodore Townsend; District of Columbia, W. M. Davidson; Florida, W. N. Sheats; Georgia, M. L. Brittain; Idaho, G. A. Axline; Illinois, William H. Campbell; Indiana, T. A. Mott; Iowa, E. C. Bishop; Kansas, John MacDonald; Kentucky, J. G. Crabbe; Louisiana, T. H. Harris; Maine, Robert J. Ale; Maryland, Andrew J. Pietsch; Massachusetts, Clarence D. Kingsley; Michigan, E. E. Scribner; Minnesota, Agnes E. Doherty; Mississippi, E. E. Baas; Missouri, William P. Evans; Montana,

John Dietrich; Nebraska, James E. Delzell; Nevada, Mrs. Catherine M. Cook; New Hampshire, Wallace E. Mason; New Jersey, M. P. E. Groszmann; New Mexico, Alvan N. White; New York, John H. Finley; North Carolina, F. M. Harper; North Dakota, Neil C. MacDonald; Ohio, J. M. H. Frederick; Oklahoma, W. A. Brandenburg; Oregon, Miss Grace DeGraff; Pennsylvania, Reed B. Teitrick; Rhode Island, Dr. Helen C. Putnam; South Carolina, D. B. Johnson; South Dakota, C. G. Lawrence; Tennessee, J. J. Keyes; Texas, F. M. Bralley; Utah, J. Preston Creer; Vermont, Mason S. Stone; Virginia, R. C. Stearnes; Washington, C. R. Frazier; West Virginia, M. P. Shawkey; Wisconsin, Carrie B. Levy; Wyoming, J. J. Early; Hawaii, Willis S. Pope; Philippine Islands, Frank R. White.

Salt Lake City Brevities.

New Mexico sent a delegation seventeen men strong to Salt Lake City. A splendid example of loyalty and patriotism.

In Salt Lake City all run-aways are stopped by steering the horse to a hill and making him try to climb it. We dodged him but several N. E. A. members had a narrow escape.

The Stampede was good, thank you. When you are in Rome, do like the Romans.

The railroads refused again to make advance reservations for all people going east. It is the old story. They get your money and you look for the scenery and the comfort too, after you are in the west.

Dr. Irwin Shepard has been elected National Secretary of the Bureau of Conventions and Societies of the Panama-Pacific Exposition. He will live for two years in San Francisco and will enjoy his work without question.

Maj. A. J. Clancy was on hand with his genial smile. So were O. J. Laylander, Frank Fitzpatrick, Hugh and Robert Foresman, C. W. Taber, K. N. Washburn, W. H. Maddock, and of course all the mountain and coast men for all the book companies.

Department of School Administration

By FRANK M. BRUCE

An unusually large number of people gathered in Bishop's Building on Tuesday morning, July 9th, to hear the discussion on the Rural School from the point of view of School Administration. The program was of course linked to the general program.

Mark Keppel, Superintendent of County Schools, Los Angeles, Cal., discussed Rural School Organization and Administration. He hit the nail on the head in many of his criticisms especially as applied to the supervision of teachers.

Edward Hyatt, State Superintendent of Public Instruction for California, next discussed Rural School Finances. He described the California plan which led to a most interesting discussion and most timely questions from men representing all parts of the country.

On Wednesday afternoon the Department of School Patrons met with the Department of School Administration to discuss not only finances but the work of the home and the school patron's part in this work. Mrs. Wm. S. Hefferan, National Congress of Mothers, Chicago, presided.

Unfortunately Francis G. Blair, State Superintendent of Public Instruction for Illinois, was unable to attend the Salt Lake City convention and to discuss School Revenue and the Rural Schools. Nevertheless in a lengthy letter to the meeting Mr. Blair pointed to the fact that in Illinois one million dollars are avail-



MR. W. R. HODGES,
Sleepy Eye, Minn., President-elect Department of
School Administration.

able for rural schools every year owing to the splendid work of the Illinois women who are carrying out the ideas of the School Patrons.

Mr. L. R. Alderman, Superintendent of City Schools, Portland, Ore., next discussed Co-operation of Home and School in a most capable manner. If only all fathers and mothers and

executive school people might appreciate the importance of Mr. Alderman's paper.

The final session of the department met on Friday morning. Frank Glynn, Director, Trade Instruction Department, City Schools, New Haven, Conn., discussed Trade Schools in a very practical manner. The subject met with the keenest of discussions and was argued for the entire session. Mr. Glynn certainly understands his subjects and has made remarkable progress in this important work.

Unfortunately E. L. Ellingwood, Consulting Engineer, City Schools, Los Angeles, Cal., could not attend the meeting at the appointed hour so that his paper on School Engineering was not read, although it was received at the close of the meeting.

The Department of School Administration will meet next February at Richmond, Va., in conjunction with the Department of Superintendence. This action was taken at Chicago last year but for several reasons the program could not be completed in time for the Philadelphia meeting. Now, however, plans are completed and most timely and practical subjects are promised for discussion.

The officers chosen for next year are President, W. R. Hodges, President Board of Education, Sleepy Eye, Minn., Vice-President, Jos. D. Sena, President Board of Education, Santa Fe, New Mex., Secretary Frank M. Bruce, Publisher of American School Board Journal, Milwaukee, Wis.



Teachers' Pension Legislation in Massachusetts

By W. I. HAMILTON, Agent, Massachusetts State Board of Education



Because of the efforts now going on in several states to secure state teachers' retirement systems, the story of the successful campaign in Massachusetts is worthy of more than passing attention. The outcome was the result of splendid team play among the teachers, the Massachusetts Board of Education, several school committees and citizens who had previously taken a prominent part in legislation of wide economic importance. President Pritchett, of the Carnegie Foundation, has pronounced the law signed by Governor Foss on June 19th as the best devised and most carefully drawn measure for teachers' pensions existing in this country.

The beginning of the campaign for teachers' pensions in Massachusetts dates back several years. In 1908 the Legislature passed an act authorizing a special tax levy in Boston for the purpose of paying teachers' pensions in that city. The Boston act has since been amended and has proven fairly satisfactory. The same year, an act was passed permitting towns and cities by referendum vote to accept the provisions of the act providing pensions for teachers. It became evident that this act would have a limited acceptance in the commonwealth, for it was discovered that the law offered little real protection to teachers. It provided that towns and cities might retire teachers at age sixty, after twenty-five years' service in a community, on a pension not exceeding one-half the salary at the time of retirement, but in no case to exceed \$500. Even after a town or city had accepted the act, such retirement was not mandatory, and even when retirement had taken place there was no assurance that money would be available to pay the pensions, since the money for this purpose was dependent upon annual appropriation by the town meeting or city government. As it worked out, therefore, many teachers were retained beyond the age of sixty-five because of lack of funds from local sources. The general conclusion was reached that this was, from the teachers' standpoint, an unfortunate law. Up to 1910 only six out of 354 towns and cities had adopted it.

The Beginning of the Movement.

In the fall of 1910, the Bristol County Teachers' Association authorized a special committee to investigate the questions of salaries, pensions and tenure of office for teachers. This committee issued a report in October, 1911, and made a strong plea for increased salaries, a state pension system, and a tenure-of-office act. The report was widely circulated by other teachers' organizations throughout the state; it became, in fact, a sort of textbook for the teachers of the commonwealth. The method of securing and presenting facts regarding salaries therein set forth was followed in many places and has led to substantial salary increases. During the year 1910, correspondence was carried on by teachers throughout the state looking toward the forming of an association to deal with

questions relating to the professional and material welfare of teachers. Several preliminary meetings were held and an organization was finally effected in February, 1911. At that time eight local teachers' associations, through regularly appointed delegates formed an organization since known as the Massachusetts Teachers' Federation. The growth of this organization has been rapid. In two years the membership has increased from eight associations to more than forty, and a majority of the teachers of the state are now enrolled as members of the central organization.

During the winter of 1911, the Lowell Teachers' Organization requested the support of the Federation for a petition filed with the legislature asking for a teachers' retirement law, similar to the Rhode Island pension law. Delegates of the Federation attended the hearing given by the Committee on Education, but at that time there was no unanimous opinion as to the scope and character of the desired law. As a result of that petition, however, the legislature referred the matter of investigating teachers' pensions to the Massachusetts Board of Education. After two years of careful and painstaking investigation, the Board of Education submitted a report to the legislature on January 15, 1913. This report is known as House Document No. 1926 and is probably the most valuable compact study of teachers' pensions that has yet been issued.

Included in the report of the Board of Education was a model bill which the Board recommended as a basis for legislation that might be enacted. The bill as originally drawn provided for a state retirement system to be formed among teachers entering the service for the first time on and after July 1st, 1914. It made no provision for teachers now in the service.

Legal Difficulties.

In its report, the Board stated certain principles it believed to be fundamental in the organization of a permanent system. The Board realized that whatever plan was adopted for teachers now in service, certain departures from those principles must be made, and had found no solution of certain legal difficulties, very much in evidence as regards those teachers. A comparatively simple legal situation existed as regards new teachers.

The law of 1908 had been adopted by eleven cities and towns. The Boston teachers' organizations were emphatic in their demands that any state system should not apply to teachers now in service or teachers hereafter entering the service of the city of Boston. There was no precedent for getting rid of the obligations assumed under a referendum vote. Furthermore, state taxes are assessed in Massachusetts under a general tax levy and not assessed upon towns and cities for special purposes. Some method had to be found, then, to obviate double taxation in the case of the city of Boston and in the towns and cities already paying local pensions. It was a highly complicated situa-

tion. The Board indicated to the legislature its willingness to undertake to deal with teachers now in service, if the fundamentals, on which the legislature could agree, were settled, and in view of the facts enumerated above, suggested that a separate bill for teachers now in service might well be considered.

The Board of Education was in touch with the officials of the Massachusetts Teachers' Federation throughout the preliminary discussion, and at one time it looked as if some hostility might be developed because the Board decided to deal with the matter in the manner indicated. Naturally the teachers now in service felt that their claims were more pressing than those of teachers yet unborn, and were very insistent that some measure should be introduced for their welfare. The Federation formed a legislative committee of one member from each local association. From this body was selected a sub-committee known as the Legislative Committee of the Federation for the purpose of drawing a measure dealing with teachers now in service.

It was fortunate that through the two years of campaigning, the Federation had agreed upon substantially the same principles as the Board of Education put forth. That is to say, the Federation stood for a contributory pension rather than a straight pension, although in 1910 petition had been made for a straight pension granted on the Rhode Island plan. During this time a campaign of education had been going on in teachers' associations throughout the State. The New Bedford Teachers' Association had undertaken the publication of a bulletin five times per year which contained several valuable studies of the pension situation throughout the country, and these had general circulation throughout the state. Public sentiment among the teachers was ready to support a contributory pension scheme.

The Legislative Deliberations.

The Legislative Committee of the Federation submitted to the Legislature the draft of a bill providing for all teachers, embodying substantially the principles laid down in the report of the Board. The Committee on Education in the legislature gave a hearing on both bills on the night of February 14th. The largest committee room at the state house was filled to overflowing, and it was evident that the teachers were thoroughly in earnest and equally well informed. It was admitted that the situation was a complex one, but the Committee on Education was urged to do everything in its power to find a satisfactory way out.

The Committee on Education shortly afterward returned the bill included in the Board's report to the Board of Education with the request that the scope of the bill be enlarged to include teachers now in service, on the same basis as teachers hereafter entering the service in so far as possible.

The difficulty of drawing such a bill can scarcely be realized by those who have not had

a hand in working out such a problem. So far as was known, there was little, if any, objection in the towns and cities that had adopted the law of 1908 to abandoning the plan and coming in under a state system. On the other hand, the Boston opposition increased, because it was urged by Boston representatives that Boston would be taxed to support a pension system for its own teachers and for teachers outside. Agents of the Board of Education held frequent conferences with the representatives of the Legislative Committee of the Federation and a somewhat tentative bill was formulated and returned to the Committee on Education. This was referred under the rules to the Committee on Ways and Means of the House. At a hearing before this committee, the corporation counsel of the city of Boston urged that pensions for teachers were a local matter, the tax therefor should be assessed upon local communities and that the adoption of a state retirement system for teachers would lead to state retirement systems for policemen, firemen and other public or quasi-public officials. The House Committee on Ways and Means reported reference to the next general court.

The Final Fight.

At this juncture, the Federation again got into action. The House adjourned without a quorum on the afternoon the report of the Ways and Means Committee was debated. That night urgent appeals from the Federation went to members of the House of Representatives, and the next morning the report of the Ways and Means Committee was rejected by a decisive majority. The bill went before the House on its merits and for a time became a legislative football. It was finally amended and passed the House in an objectionable form. An amendment had been added providing that the commonwealth should primarily pay the pensions, but should assess the cost thereof back upon the towns and cities in which the beneficiaries were last employed. The bill went to the Senate in this form. The Federation sent a circular to every member of the legislature, to the newspapers, and to prominent men who had interested themselves in the cause of teachers' pensions, pointing out that the amendment absolutely nullified the good effect of the bill, inasmuch as it destroyed the mobility of teachers, and that many towns and cities would doubtless see to it that no teacher ever became sixty years of age in their service and thus escape a direct tax for pensions.

The Senate Ways and Means Committee gave a hearing on the bill and at this hearing the Board of Education presented a series of amendments which seemed to harmonize all the legitimate objections that had been raised. Boston members, however, still pressed the academic objection that state pensions for teachers were a precedent for state pensions for other groups of workers; but the Senate Ways and Means Committee reported the bill in the exact form recommended by the Board of Education. The House concurred in the amendments. After several days of hard campaigning, the bill passed both branches of the legislature and was held for consideration by the governor the full five days allowed him. Rumors of a veto were prevalent. Careful analyses of the bill and its probable effects, both financial and educational, were prepared and presented to the governor by men thoroughly familiar with the question of pensions in all its bearings. Commissioner Snedden stated: "I am of the opinion that no other step could be taken at the present that would redound so much to the benefit of public education in Massachusetts as the passage of this bill."

On June 19 Massachusetts became the ninth

state to adopt a complete state teachers' retirement system.

Provisions of the Law.

Membership. All teachers entering the service of the public schools after July 1st, 1914, must become members of the retirement association. Teachers in the service of public schools prior to July 1st, 1914, may, or may not, become members of the association at their option. Teachers in the service of the Boston public schools are excluded from membership. For the purposes of this act, superintendents of schools and teachers in state-aided industrial schools are included as teachers.

Management. The management of the affairs of the association is vested in a retirement board consisting of the commissioners of the three state departments of insurance, banking and education; three members elected by the prospective beneficiaries of the retirement system and one person elected by these six. This board must elect a paid executive secretary, fix the rate of assessment between three and seven per cent of the annual salary of members, determine what annuity tables shall be used and, in general, have charge of all the business of the association.

Funds. The funds provided for by law are, (1) the expense fund, (2) the annuity fund, (3) the pension fund. The expense fund is an annual appropriation by the legislature sufficient to pay the running expenses. The annuity fund is made up from the assessments on the salaries of teachers who become members of the retirement association. The assessment rate shall be from three to seven per cent of the salaries of the members of the retirement association, this rate of assessment to be uniform on all teachers at any time, and not to be changed except after a prior notice of six months. The minimum amount that any teacher is permitted to pay is fixed at \$35 per annum; the maximum, \$100 per annum. The pension fund is an annual appropriation by the legislature sufficient to meet the obligations assumed under the act.

Retirement. Members may retire at sixty years of age or after. Members must retire at the age of seventy, and school committees may

retire teachers between the ages of sixty and seventy, if approved by the retirement board. Upon retirement, a member shall be entitled to receive from the annuity fund a life annuity based upon his contributions, that is, the total amount of his assessments with compound interest guaranteed at three per cent. A member so retiring and receiving an annuity shall receive an equal pension from the state. A teacher in service before July 1st, 1914, is guaranteed a total minimum retirement allowance of \$300, regardless of the number of contributions he may make. The pension for teachers retiring in the first few years will be based upon the theory that the act has been in force thirty years. That is to say, the teacher's average salary for the last fifteen years will be ascertained; it will then be assumed that the teacher while in service has paid assessments upon this salary at the rate current at the time of retirement. On the basis of this theoretical amount, the pension will be computed. Under the conditions imposed by the law, no teacher will receive less than \$300 or more than \$500 at the age of sixty years.

Contributions and Refunds.

The amount of contributions any teacher may make is limited to the amount sufficient to produce an annuity of \$500 at the age of sixty. The equal pension in this case would be \$500. If, however, a teacher continues in service beyond sixty, the amount of pension would increase without any additional expense to the State because of the decreased expectation of life. An annuity of \$500 at age sixty is in round numbers the same as an annuity of \$750 at age seventy. It is possible, therefore, if the rate of assessment and the salary are sufficiently great, and the term of service of sufficient length, to obtain at age seventy, a total retirement allowance of nearly \$1,500.

Refund. Unlike most other pension laws for teachers, this law provides that a teacher withdrawing from service before becoming eligible to an annuity shall receive the amount of contributions with compound interest at three per cent. There is no building up of an insurance fund for the aged at the expense of young teachers. This is a wise provision, inasmuch as the average teaching life is about seven years and a very small percentage of those who enter upon teaching ever become a pension risk.

Reimbursement. Provision is made that the act of 1908 mentioned above shall not hereafter be adopted by towns and cities; that the cities and towns having adopted it may repeal it by referendum vote, thus forcing the teachers, if they wish to receive a pension, to become members of the State system. If the town or city does not repeal the act, it may continue to pay pensions to teachers now in service and be reimbursed therefor up to the amount any teacher would have received had he become a member of the State system. The same reimbursement provision applies to Boston.

Disability Not Provided For.

In general. The law is a straight, old-age measure and makes no provision for withdrawal from the service prior to age sixty. It was urged by some teachers that the act be modified so as to provide for the payment of a proportionate pension for a given length of service in case of disability. The Board of Education, acting upon the best advice it could obtain, decided that such a proposition would not meet the needs of the teachers. If disability includes, invalidism, disabling accidents, temporary and permanent, it is obvious that adequate protection is to be found only in compulsory disability insurance adjusted to the occupational risk of teaching, for which a sufficient premium must be charged. Disability due

(Concluded on Page 55)

The Mail of the Well

MAY AYRES

JOHNNY JONES HAS LOST A LEG,
FANNY'S DEAF AND DUMB,
MARIE HAS EPILEPTIC FITS,
TOM'S EYES ARE ON THE BUM,
SADIE STUTTERS WHEN SHE TALKS,
MABEL HAS T. B.
MORRIS IS A SPLENDID CASE OF IM-
BECILITY,
BILLY BROWN'S A TRUANT,
AND HAROLD IS A THIEF,
TEDDY'S PARENTS GAVE HIM DOPE
AND SO HE CAME TO GRIEF.
GWENDOLIN'S A MILLIONAIRE,
JERALD IS A FOOL,
SO EVERY ONE OF THESE DARNED
KIDS
GOES TO A SPECIAL SCHOOL.
THEY'VE SPECIALLY NICE TEACHERS,
AND SPECIAL THINGS TO WEAR,
AND SPECIAL TIME TO PLAY IN,
AND A SPECIAL KIND OF AIR,
THEY'VE SPECIAL LUNCHES, RIGHT
IN SCHOOL,
WHILE I—IT MAKES ME WILD!
I HAVEN'T ANY SPECIALTIES
I'M JUST

a normal child.

SCHOOL ENGINEERING: IT'S NECESSITY

By E. L. ELLINGWOOD, Consulting Engineer, Los Angeles, Cal.*

The particular branch of School Engineering with which I have to deal at the present is that relating to the design and installation of the mechanical heating and ventilating equipment, and I particularly desire to demonstrate why the design of these mechanical systems should have particular and careful consideration.

To justify some of my statements, and to place the matter before you in a manner that will make it possible for you to see the logic in my reasoning, requires that I go somewhat into detail in describing the basic conditions governing the installation and operation of any mechanical heating and ventilating system.

Primarily the reason for any such installation is found in the necessity of providing, artificially, conditions, which cannot be provided naturally. These requirements, generally speaking, are a sufficient quantity of pure air, properly conditioned in regard to humidity and temperature.

The Composition of Air.

Atmospheric air is not a chemical compound, but a mechanical mixture of oxygen and nitrogen and smaller quantities of other gases and elements. One hundred volumes of atmospheric air contains 20.60 volumes of oxygen, 77.16 volumes of nitrogen and from 0.04 to 0.06 volumes of carbon dioxide, besides certain negligible quantities of argon, ammonia, nitric acid, sulphuric and sulphurous acids, and hydrocarbons in certain localities, and a varying quantity of aqueous vapor. Owing to the minute quantities of these other substances and their questionable physiological effect, the only other elements contained in the air, which it is necessary for us to consider, are the oxygen, nitrogen and carbon dioxide.

Oxygen is the most important of these elements and requires the greatest consideration because it is the gas necessary to support respiration and combustion. The nitrogen in the air requires consideration only because this gas serves as a dilutant for the other gases, and is necessary in order to support the physical structure of the air. The carbon dioxide in the air requires particular consideration because it is the poisonous element, and is always formed during the decomposition of carbon, or organic matter. It is being constantly produced in the animal system, exhaled from the lungs and given off through the skin.

Carbon dioxide in the proportions found ordinarily in the atmospheric air, out of doors, is not harmful, but when this proportion is increased it begins to have a very deleterious effect upon the human system. Carbon dioxide is not taken back and reabsorbed in the system to any great extent until the proportion in the air is greater in tension than that in the blood, and that in the blood is not given off freely when the tension of the carbon dioxide in the air is increased abnormally. From this will be seen that any increase in the proportion of carbon dioxide in the air surrounding the body causes a decrease in the excretion of this substance, resulting in the overloading of the system and ultimately producing auto-intoxication, poisoning, asphyxia. This condition may be brought about even though there is in the air a sufficient volume of oxygen to support respiration.

It is, therefore, absolutely necessary that the proportion of carbon dioxide contained in the air, which we breathe be kept as low as possible. This can only be accomplished satisfactorily by dilution, or increasing the proportion of the other elements.

Necessity of Artificial Ventilation.

Uninfluenced by forced or artificial conditions nature provides air abundantly suitable for respiration, and could we bring about a condition that would permit of our constantly breathing only air as provided by nature under normal conditions there would be no question of its healthful influence. Our present mode of living, however, the necessity of protecting our bodies from the vicissitudes of the climate, and the fact that our business and social interests demand the congregation of larger numbers of people in smaller spaces than nature ever intended, requires that some artificial means be taken for purifying the air, or restoring it to its normal condition.

These conditions and requirements have resulted in the development of artificial ventilation and have determined how it should be accomplished. However, no system of ventilation can be considered to have been properly designed that does not take these facts into consideration with the purpose of providing air under natural conditions, as nearly as is practicable.

It is also an acknowledged fact that under these same conditions artificial heat is at times essential. We cannot all live in a correctly tempered climate, nor can we all live in a manner that would make it possible for us to remain comfortable at all times under the varying conditions of the temperature.

Ordinarily a person considers the air that he is breathing good, and the temperature correct when no sensation of discomfort is produced. This is due to the fact that at this time these conditions of the air meet certain physiological requirements of the individual, but there are no two individuals in whom the physiological requirements are the same, nor is there any individual in whom the physiological requirements are the same at all times. Most healthy persons have sufficient vitality to withstand a wide variation in the quantitative conditions of the air without any sensation of discomfort, but there are persons to whom the slightest change of these quantitative conditions is undesirable.

Mental Attitude and Comfort.

Another condition which largely affects the comfort of the individual and which is not generally accredited is the fact that an impression of a condition may cause a mental attitude to be assumed, which has a very definite physiological affect, although entirely unwarranted by the actual conditions. While we know that people affected by these impressions may often be reasoned with, still they experience the same sensation of discomfort, due to their imagination, as they would if the conditions were actually as they feel them to be. To this, much of the sentiment in favor of different methods of heating and ventilation owes its origin. Many times we find teachers and pupils in a classroom who, because the windows are closed, assume that the room must be poorly ventilated, when as an actual fact the mechanical system will be delivering many times the volume of air required to maintain the standard of purity; and on the other hand, with the windows open, and the wind blowing in strongly enough to disturb the papers on the desks, we have been told that the ventilation was perfect, where a carbon dioxide test would indicate that only a small portion of the pupils were being benefitted by the natural ventilation.

In considering the comfort of the individual it is also necessary to bear in mind the fact that there are times during the day when the carbon dioxide is being given off from the body

in much larger quantities than at other times. It is also a fact that the discharge of the carbon dioxide is largely dependent upon the humidity of the air by which it must be absorbed.

Humidity and Air Conditioning.

The function of the pores of the skin is to provide means of egress for the carbon dioxide, to a certain extent. The secretion also contains considerable moisture. When the air in the room is at, or near, the saturation point, or when it is capable of absorbing very little moisture, the rate of the discharge of the carbon dioxide is thereby considerably decreased. This causes a sensation of stuffiness to be felt that is not due to a lack of oxygen in the air, or to an excess of carbon dioxide, but entirely to the fact that it is impossible for the pores to perform their normal functions and the blood becomes overloaded with carbon dioxide. On the other hand when the proportion of moisture in the air is relatively low the rate of evaporation from the skin is much higher and the carbon dioxide is given off from the skin more freely. The only discomfort arising from this condition is the rapid drying of the skin and the likelihood of contracting colds.

From these facts it should be apparent that the question of proper ventilation primarily involves the question of comfort to the occupants of the room, which cannot be overlooked. It is also apparent that we cannot bring about a condition that will be absolutely suitable for each individual. Obviously, the best we can hope to do is to provide air conditioned so that it will most nearly satisfy the physiological requirements of the average pupil.

If we supply air to the classrooms from out of doors, remove all of the solid matter, maintain an even and suitable condition of temperature and humidity, and furnish this air in sufficient quantities so that the carbon dioxide exhaled from the pupils is immediately diluted to the necessary low percentage, we will have a condition as near to that intended by nature as it is possible to make it.

Air Composition Unaffected by Modern Heating Systems.

There is absolutely no foundation for the impression that raising the temperature of the air by the methods ordinarily employed in a heating system in any way affects its composition, considering the air as originally being practically pure. As indicated before, in order to render this air harmful for breathing purposes it must be either robbed of the essential oxygen, or loaded with carbon dioxide, neither of which can possibly occur in passing the air through any of the modern heating systems.

If the air was overheated the only physical effects would be the destruction of micro-organisms, living bacilli, or the combustion of organic matter, which must necessarily have a good instead of a harmful, effect. As an actual fact the temperature of the air leaving the heaters, generally, is maintained at from 105 to 115 degrees Fahrenheit, in exceptional cases running as high as 120 degrees. Using a steam heater the temperature of the air cannot possibly be raised above the temperature of the steam in the heater, which at atmospheric pressure is 212 degrees, of itself not sufficiently high to destroy life.

There are many contrivances in common use that make it possible to maintain the temperature at any desired point and absolutely prevent overheating. This is done with the object in view of maintaining comfortable temperatures in the classrooms, however, and not for the purpose of protecting the air itself from overheating.

*Address prepared for Department of School Administration, N. E. A., July 11, Salt Lake City.

Raising the temperature of the air, of course, increases its volume by the well known rule of expansion of gases. By increasing the volume of air we also increase its moisture absorbing properties. This condition is taken care of by certain devices, which I shall describe later.

To provide practically pure air it is, of course, essential to eliminate as much of the solid matter, such as dust, and small particles of organic matter held in suspension, as is possible. This is done by very efficient air washing apparatus, many manufacturers of which guarantee to eliminate as high as 99 per cent of the solid matter held in suspension.

What a Modern System Includes.

A typical heating and ventilating system for a modern school building involves the use of an air washer, a fan or blower to force the circulation, heating apparatus to raise the temperature of the air, a system of ducts for the transmission of the air to the various classrooms and other points of service, means of distribution in the classrooms, and positive means of automatically maintaining any predetermined condition of temperature and humidity.

An air washer, generally speaking, is a device that thoroughly saturates all the air admitted to the system, thereby precipitating all of the solid matter, which is carried to waste. Most air washers are designed so that the aeration is similar to that of a severe rain storm, every particle of air coming directly in contact with a shower of water. Obviously, under these conditions, on leaving the washer, the air would be thoroughly saturated with moisture, in other words incapable of absorbing any more water and holding it in suspension. This is not a normal condition. It has been determined by the medical profession that the most healthful air for all purposes contains moisture equivalent to approximately 50 per cent. saturation. In raising the temperature of the air, the air is expanded and its moisture absorbing property increased. There are suitable devices in common use whereby this condition of humidity can be maintained at any fixed point from dry to saturation. It is, therefore, easy to condition the air as desired.

The apparatus used for raising the temperature of the air consists either of a furnace with extended radiating surface, around which the air is circulated, or banks of steam coils through which the air is forced at a more or less high velocity. In either case the results obtained are practically the same. However, in the case of the steam coils the discharge temperature can be more easily regulated.

Owing to the large volumes of air required, comparatively small amount of space for the accommodation of the apparatus, and the necessity for positive circulation, some means of forcing circulation is generally employed instead of depending upon the natural draft caused by the difference in temperature. This forced circulation is brought about usually by a fan or blower, capable of infinite variation in discharge, volume and pressure.

Ventilation of the Classroom.

By the use of a system of distribution ducts, or air piping, in connection with this equipment, certain volumes of air at the proper temperature and humidity can be discharged into the classrooms. The volume most suited for the comfort of the pupils has been determined at 30 cu. ft. of air per minute; therefore, a normal classroom seating 48 pupils, including the teacher, would be supplied with approximately 1,500 cu. ft. of air per minute. This air is admitted into the classrooms at a point high enough above the floor and at a velocity low enough so that there is no sensation of draft.

The temperature of the air entering the room is automatically maintained at a certain point,

so that the temperature of the room at the breathing line will remain constant at any predetermined point under all conditions of operation. In most of our schools this point is 68 degrees, which has been found by careful examination to be most desirable by every one concerned. The air enters the room at a point about 9 feet from the floor, at a temperature of approximately 98 degrees. As this is the hottest air in the room it immediately seeks its proper level at the ceiling. There are openings provided near the floor for the expulsion of foul air, which is heaviest not only because it is cooler, but also because it contains an increased percentage of organic matter. As this air is forced out by the pressure of the incoming air, its place is taken by air settling down from the ceiling. Under normal conditions of operation we have a constant though slow circulation of air, from the ceiling to the floor, uniformly over the entire room. The thermostats for the control of the temperature of the entering air are set for 68 degrees. This assures us that the fresh air by the time it reaches the breathing line will be at this temperature. Owing to the fact that we have a constant downward circulation it is obvious that when the air reaches the breathing line it still maintains its condition of purity, having been absolutely uncontaminated. In this manner each pupil is provided with fresh air at the proper humidity and at a temperature of 68 degrees.

No System All-Sufficient.

The proper design of a mechanical system involves the consideration of conditions, which cannot be determined in advance of the installation. We can very closely approximate the probable conditions, and design equipment accordingly. However, there are so many factors to be considered, and which have a direct bearing upon the successful operation of any mechanical system, that cannot be determined, that it is necessary to provide a comprehensive system, that is, a system that is sufficiently wide in scope and capable of sufficient variation to take care of any or all of these unforeseen conditions should they arise. I refer particularly to designing apparatus that will not be affected by the position of the sun, the leakage of air around windows and doors, force or direction of wind, and any variation in the physiological requirements of the pupils in the classrooms.

Theoretically it should be possible to properly ventilate a schoolroom entirely with a mechanical system, and this question has been agitated on many different occasions. Actually there is no question but that conditions may arise which have not been foreseen and provided for, which will make it impossible to depend absolutely upon a mechanical system. However carefully designed, no system of ventilation can be perfect, that is, be operated in a manner so that there will be no possible or obvious ways of improving it.

Having the question of the comfort of the pupils continually before us as the chief reason for installing apparatus of this nature, we must not lose sight of the fact that anything that can be done to increase the comfort of the pupils should be done, regardless of the fact that we think that the mechanical installation should be adequate.

Open-Window Ventilation.

This reopens the time honored and often discussed question of open-window ventilation. I have some opinions on the subject, which may be considered radical by some, but you must bear in mind continually the fact, which I mentioned before, that there is a tendency upon the part of many of us to allow ourselves to be governed by knowledge of what the conditions should be, instead of by definite information as to what the conditions are. Because large numbers of pupils congregate in one classroom it does not necessarily follow that the air must be impure after being breathed for a while. It is also a fact that because a building is equipped with mechanical heating and ventilating apparatus that the air is fit to breathe. There is always a subconscious tendency on the part of the occupants of the room to consider the conditions to be as they think they should be, instead of as they really are.

This condition enters very largely into the question of the comfort of the individual and must be given careful consideration, because a mental attitude often has a definite and positive physiological effect. We must treat these conditions practically and make due allowance for their existence.

I have given this question much careful thought, and have experimented quite extensively to determine the exact effect of open windows, in a classroom, upon the operation

(Concluded on Page 56)



A Schoolhouse on the Move.

An unusual feat of engineering was last month completed at San Francisco when the Newton J. Sharp Commercial high school was moved to a

new location a distance of 3,000 feet from its original site. The building is said to be the largest brick and steel structure which has been

(Concluded on Page 49)

THE NEW ORDER IN SACRAMENTO

By HARRY SPEAS, Sacramento, Cal.

On July 1, 1912, a new order of things came into the life of school work in Sacramento, California, for upon that day a city commission of five was sworn into office and with the coming of the five commissioners, also came the city board of education of five members—the same body of officials. For be it known that Sacramento has an unique charter. The personnel of the city commission is that of the city board of education—one body contained in the other.

During the fifty years since the organization of the city the school system of Sacramento has made only such progress as it might in spite of old and befogged principles of management—the same kind of school government and management that obtains in thousands of communities. It made progress only by the natural passage of time and general evolution of things educational. Then in June, 1911, in pursuance of the provisions of the constitution of the State of California, a board of freeholders was elected in Sacramento. After a long and arduous fight against the prejudices and mixed theories of radicals and conservatives, a charter was put forth for the vote of the people, the chiefly notable feature of which was that the membership of the city commission should constitute the membership of the city board of education.

Those who had been slow to make changes in the set principles and customs of a half century, were strongly opposed to the new proposition in school management. After the ratifying election was over and the charter had been adopted by a margin of less than three hundred votes, it was found that the chief objection to the charter was because of the provisions as to the city board of education.

Sacramento, the capital of California, a growing city of factories and railroads, with little less than 100,000 population at this time, had outgrown, as it were, the accommodations provided for its 10,000 school children. This condition obtained five years ago and was even more acutely felt two years ago. The high school of Sacramento had always been a high-class institution and had brought no small degree of fame to the city. Naturally, the progressives of the city were anxious to make it better and to bring the common schools to a similarly high plane of efficiency that would make the fame of the city even greater in educational circles. And so the charter was adopted by the city, ratified by a special session of the California legislature and signed and approved by Governor Hiram Johnson.

Faults of Old System.

The new order of things has passed the experimental stage and we have come down to a solid working basis. We know just what to expect and what we are going to get. All, of course, provided we get a reasonable degree of efficiency in the expert management of the schools and in the personnel of the board of education.

The old method in Sacramento was government by a board of education composed of nine members, separate and apart from the board of city trustees, the city's governing body. The city board of education could not buy or sell property, or perform many other necessary functions without having the approval of the board of trustees. Being separate bodies, there were always delays and misunderstandings. Bills contracted by the board of education were audited by the county auditor and paid by the county. The board of education had little real authority. The condition now is: when the

board of education has a question about which the city commission has anything to say, it is quickly and satisfactorily settled for the good of the public, because the members of the education board have but themselves to argue with. There is no mayor in Sacramento. That unnecessary official was dispensed with, along with the charter that failed to give a Western city of progressive spirit just what it wanted in government. With the mayor, passed many confusions that came to the board of education. There are few of the three hundred commission-governed cities of the United States that have gone so far as to do away with their mayors, and but one other city has taken the step, that this city in California has taken, of combining the membership of the city board of education with the city commission, or municipal governing body.

How the Plan Works.

When President Eliot of Harvard was asked to propose how the public-school systems of certain cities of this country could be improved, he laid down three rules: First, that a small board should be created which should confine itself to legislation; second, that executive functions be left wholly to experts; third, that matters of finance be in the hands of the board with a graduated, predictable income determined by law. Now all of these things have come to pass in the school government of Sacramento, and to the betterment of the city be it said. The board of education has been reduced from nine to five members; the board legislates for the department, but does not interfere with its scientific management, that being in the hands of an expert; the finances are in the hands of the board, with an income set by law that gives the board of this year a knowledge of what it will have on hand to spend for the next.

Each commissioner and school-board member is elected for a term of five years and but one is elected each year. The short ballot prevails, there being but one elective officer annually. No candidate is allowed to use his political party, nor is a political party allowed to use a candidate for the advancement or advertisement of either. No party designations appear on the ballot. Sacramento has entirely removed her school department from the taint of politics.

When the first election under the new charter was held in May, 1912, there were thirty-three candidates at the primary election and ten of them qualified for the final election held two weeks later. The result was that a woman was elected commissioner and school board member for the short term of one year. It was decreed that the person receiving the highest number of votes should be given the five year term, the next four, and so on to the last. This arrangement was for the first city election only. Thereafter it is provided that the one candidate to be elected shall enter upon a five year term. Whether the office is for the full five years, depends entirely upon the ability of the officer to withstand whatever attacks may be made upon him in the form of recall elections. Mrs. Luella B. Johnston, a clubwoman and former school teacher of the city, was elected for the one-year term, defeating a business man who had been a member of the city-board of trustees for nine years. When the commission met and apportioned the offices, she was given the office of commissioner of education. She filled that place for one year, being one of the extremely few women to be elected in any of the three hundred commission-governed cities of the United States, and was overwhelmingly defeated at the last election by the man she nar-

rowly defeated the year previous. It is said that the women of the city decided the contest and the question of sex in the enticing quest for public office is still a burning one in Sacramento.

The commission apportioned offices as follows: M. J. Burke, blacksmith and Union Labor candidate, commissioner of streets and president of the board; J. A. Filcher, capitalist, commissioner of finance; Charles A. Bliss, attorney, commissioner of public health and safety; Edwin M. Wilder, physician, commissioner of public works; Mrs. Luella B. Johnston, clubwoman, commissioner of education.

All Co-operate for Schools.

Each of the commissioners and members of the board of education have proven extremely valuable to the educational department of the city by the assistance rendered from his respective department. If there is police protection needed for school purposes, the commissioner of public health and safety quickly acts. If the school department needs teams or wagons for special work, the commissioner of streets is ready to give assistance. And so on down the entire list of commissioners.

Another big reason for the combination of city governing body and school board is the assistance received from subordinate employees. This makes a big saving to the school department. Let me explain: There is seldom ever a meeting day of the city board of education that some legal question is not asked from the city attorney. He is not regularly and constitutionally the legal advisor to the board, yet he serves because he has the time and there is no good reason why he should not. He has seven assistants and gives legal rulings quickly. There is no charge, except in the case of extraordinary expense. It is quite necessary for the city to maintain the city's attorney, with a large staff, and the school district profits thereby.

The city engineer's office renders valuable assistance in planning and estimating work and making up specifications, and makes no charge, unless it be for special time put in by an architect or draughtsman. The city purchasing agent buys all school supplies. He bought \$60,000 of supplies for the school department last year, although his salary and expenses are paid by the city. There is concentration and condensation. This phase is an important one in the proposition of combining the city's governing body with the school governing organization. It means economy and simplicity of control, concentration of power and expedition in business. Efficiency in education implies standards of efficiency and detail knowledge of results achieved. Results, after all, are but signposts on the highway to success and it is to these that proponents of the new methods in school government in Sacramento point.

The New Superintendent.

One of the first important acts of the board of education, after the first municipal election under commission rule, was to look about for a superintendent who had unusual ability; one who had traveled in the byways of precedent, and who had large experience, modern ideas and forcefulness. Charles C. Hughes, with twenty years behind him as an educator, proved to be the man, and he is being paid \$3,600 per annum to guide the destinies of the Sacramento school children. He was superintendent in several California cities, including Alameda, where the principles set by him are pointed out today as guideposts in education.

After Mr. Hughes' election, he immediately set about to put new life into the school depart-

ment of Sacramento. He was confronted with twenty old and decaying school buildings, and a dry rot in the teaching staff of three hundred men and women, mostly women. The teachers and principals had old ideas of teaching—they were teaching old ideas to young brains. That was the first conclusion of the new superintendent and he issued two important orders. First, there should be no more home study, each pupil being given a period of study and a period of recitation in school. Second, there should be no more set examinations for promotion from grade to grade; the teacher should use personal judgment in passing children on their average work. In the judgment of the superintendent, too little attention was paid to the relative values of various subjects in the curriculum. He believed that the amount of time given to a subject was too often left to whim or preference. A teacher would spend too much time upon a study she preferred and not enough upon a distasteful subject. The net result was unbalanced work and loss to the children. The recitation periods were accordingly fixed as follows:

First and second grades, children aged six and eight, 15 minutes.

Third, fourth and fifth grades, eight to eleven years of age, 20 minutes.

Sixth, seventh and eighth grades, ages 11 to 14, 30 minutes.

Having determined upon the length of periods, time to be set aside for recess and noon-hour, and frequent intervals for physical training, it was found that in the first and second grades there could be given 12 periods daily, or 60 for each week; for the third, fourth and fifth grades, the same number and in the sixth, seventh and eighth grades, nine daily or 45 per week. A schedule was then formed upon which to base the order of recitations and study periods.

Studies Simplified.

Superintendent Hughes destroyed a few traditions and upset well-established customs of

many years when he decided that the Sacramento public schools should be conducted upon the principle that a thorough mastery of the fundamental operations of arithmetic should be the aim and ultimate result, rather than an effort to acquaint the pupil with the ever-widening field of practical usage. "An intensive study of the subject and a thorough drill upon the essentials is worth more to a child than a superficial knowledge of the many ramifications of the subject into the trades and general business operation," said Mr. Hughes.

The new superintendent was allowed freedom for his principles and ideas, the members of the board of education maintaining a "hands off" policy. And Mr. Hughes proceeded to put his plans into execution. He took up the question of elimination of home study in a thorough manner. He explained that the child's study should be under the direct eye of the teacher and should not be left to the busy home, where conditions are seldom right for the work, where the parents are unprepared for it or have not time to devote to it.

"It is the business of the school, not the home," he said, "and the school has no right to shift the responsibility." His decision settled the question and the school board did not interfere with his plans. The net result of the new order was that every teacher took on new interest and activity and the children, instead of drudging at home with a half-hearted interest in studies in which the average parent could not give assistance, learned them well under the watchful eye of the teachers. The general conduct of the schools became better.

Promotions and Examinations.

The plan of promotion from grade to grade, supplanting the old system of set examinations, is based upon the three-fold judgment of the teacher. Going upon the theory that the promotion of the child should not be dependent upon a final, nerve-racking test; that the average normal child improves day by day; and that the

average normal teacher should be able to note that improvement day by day, Superintendent Hughes decided that the teacher's judgment should be based upon the daily recitation of the child; upon written work, and last, upon the effort of the child. In the opinion of this young man who has brought the Sacramento school department out of the "slough of despond" by iconoclastic and tradition-breaking ideas, the efforts of the child is the most important factor for determining promotions, and is one usually lost sight of. The effort of the backward child is worth much more than the effort of his brilliant mate, and so under the eye of the teacher rather than the parent, the study activity and effort of the child was noted for promotion.

Superintendent Hughes found the board of education in hearty accord with his further idea that school buildings should not be built as "grammar" or "primary" schools separately, but should be consolidated, constructed of fireproof materials and provide space for at least a thousand pupils and twenty classrooms. Fortunately for the new regime, the old board of education had spent but a small portion of the \$800,000 voted two years ago for school improvements. Contracts will soon be signed for a fine concrete building of 24 rooms, with accommodations for more than 1,000 children, combining two old primary and grammar districts. This is the first of a system planned, to take the places of old and rotting wooden and brick school structures, planned without the slightest effort to preserve the eyesight, health or lives of the school children. In each of the new buildings are to be broad stairways and on the outside four fire escapes will be built as stairways, so that the buildings may be emptied quickly in times of fire and distress.

When the city board of education took up the question of buying land upon which to construct the new and modern buildings, it was

(Concluded on Page 56)

"Seeing Salt Lake City" from a Rubberneck Wagon

By FRANK M. BRUCE

Imagine, if you can, a bright young fellow, about twenty-two years of age, healthy and strong, who is running a "Rubberneck Wagon" for want of something better to do. The real humor of his jokes and puns has long since passed. A sharp eye watches the machine and the other the crowd. If the stereotyped lingo takes, more of it follows. Our crowd was appreciative so the story followed without hesitation.

Ladies and Gentlemen:—

It affords me great pleasure to show a load of teachers the beauties of Salt Lake City. Our trip will take about an hour and I think I can convince you that you are now in the most interesting city of the world.

Salt Lake City was founded by Brigham Young and the pioneers in 1849. As Brigham came through the valley he saw its vast possibilities and decided that "this is the place." Supt. Nelson's mother walked all the way from Omaha, dragging a cart.

Salt Lake City has a population of 100,000. It is the capital of the rich state of Utah, which has large deposits of copper, gold and other precious metals in its wonderful mountains. Its valleys are now being irrigated, so that much of its land which a few years ago was worthless, sells for \$300 and \$400 per acre.

When Brigham Young laid out this Salt Lake City he decided to include ten acres of ground in every city block. He intended ten families to every block and one acre of ground

to every family. The streets he made particularly wide so that the women folks might not throw stones at one another across the way.

We are now going East on East Temple St. On the left you see the Temple grounds with the famous tabernacle to the rear. These buildings were erected by Brigham Young and the pioneers as the central worship places for the Mormon religion.

On the right you see the Hotel Utah and beyond this the famous Lion house. This was erected by Brigham Young to house his 18 wives and fifty-six children. On the right you see the home of Brigham Young erected for his favorite wife Amelia. This house was sold several years ago to a rich miner who now spends most of his time in the east.

We are now going north and the Temple grounds continue on your left. On Saturday last, our Chief of Police issued an order to all N. E. A. Visitors to be careful of pickpockets, thieves and bandits. He says you are to be careful of dollar matchers, touts and wire tappers. "Be careful how you handle your pocket book and especially your roll of bills," says the chief of police. A friend of mine suggests that if the Chief of Police had ever been a school teacher he would never have issued the order. This same friend tells me that the poor school teacher rarely has any use for a pocket book and never gets hold of a roll of bills.

We are now passing through the most select residence district of Salt Lake City. All the

lawns you see are watered twice a day. All the water for this city is brought from the mountains, eighteen miles away. Water is our great health product. It makes us exceedingly abstemious. In fact, we now have in all of Salt Lake City only two saloons—prolonged pause—to every church.

To the right you see the home of one of our wealthy miners. It is positively the most costly and beautiful home in all the mountain states. Its owner is not only lavish in providing a most extravagant home for his family, but insists upon gold and silver in all shapes and forms in every part of his establishment. He is so extreme that every time he goes out riding in his automobile, he insists upon using Diamond tires—joke.

Just ahead of the car you see the ground work of our new state capitol. This will be, when completed, the third finest state capitol in the United States. The finest capitol of the country is located at Albany, New York. The second is in your own state. The third will be our Utah capitol.

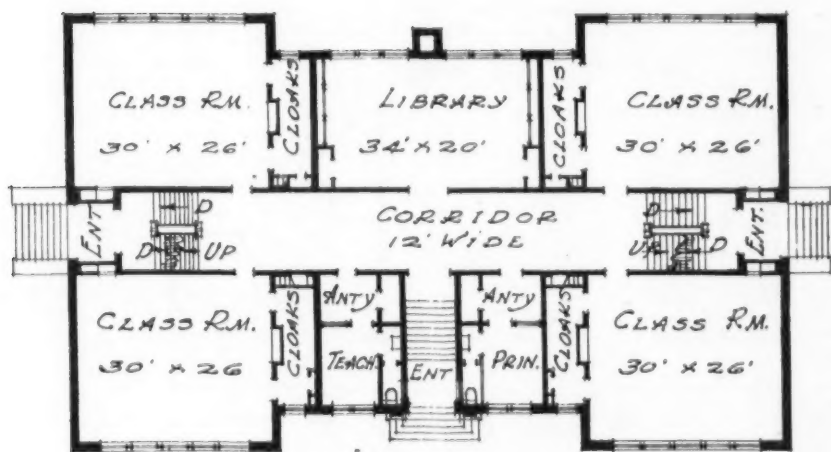
On the right you see a small low-roofed house. It seems so small, a man couldn't change his mind in it. This house was the last home of Amelia Brigham Young, the favorite wife of Brigham Young, who two years ago, died at the ripe old age of 84 years, 8 months and seven days—still Young.

The corner we are now passing through repre-

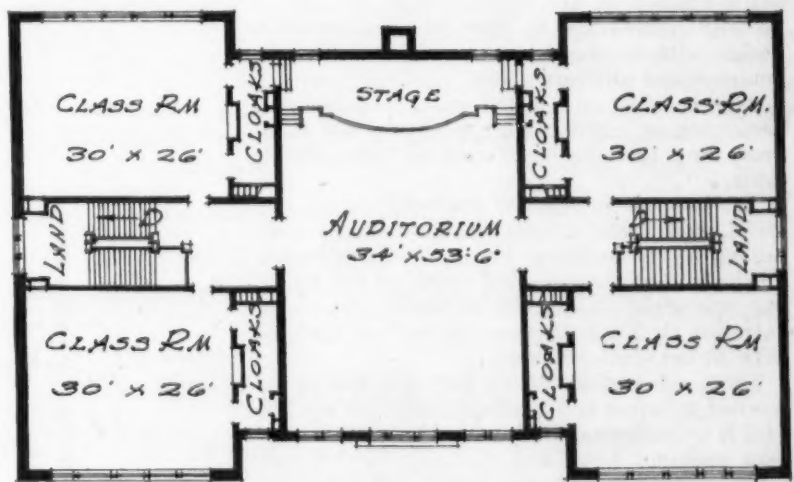
(Concluded on Page 55)



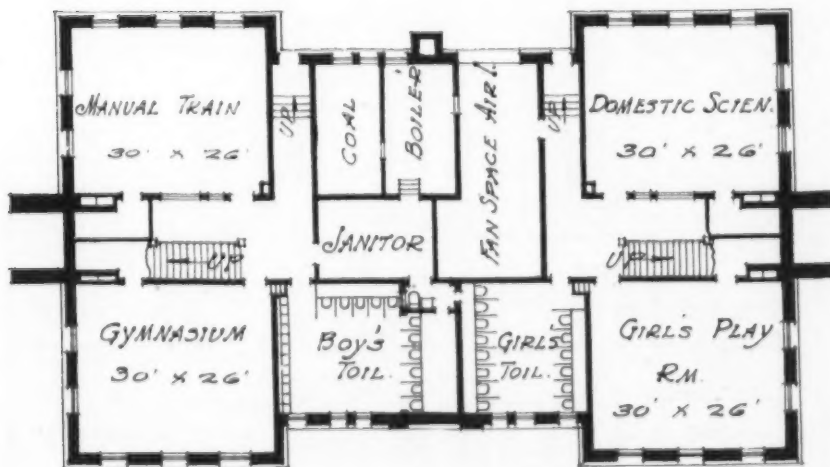
HIGHLAND AVENUE SCHOOL, ATLANTA, GA.
Edward C. Dougherty, Architect, Atlanta.



FIRST FLOOR PLAN,
Highland Avenue School.



SECOND FLOOR PLAN,
Highland Avenue School.



BASEMENT PLAN,
Highland Avenue School.



FORREST AVENUE SCHOOL, ATLANTA, GA.
Edward C. Dougherty, Architect.
(Plans identical with those of Highland Avenue School.)



CENTRAL SCHOOL, REDONDO BEACH, CAL.
L. B. Pemberton, Architect, Los Angeles, Cal.

REDONDO BEACH GRAMMAR SCHOOL.

The new Central Grammar School recently completed at Redondo Beach, Cal., is an attractive example of the school buildings which are being erected on the Pacific Coast, and is especially noteworthy in that it combines good design with an ideal arrangement both for convenience and minimum cost.

The building is located on a sloping site, occupying an entire block, (300 ft. by 600 ft. in area) in a thriving beach city of 5,000 inhabitants.

The grounds in front of the building are terraced, with broad cement walks and steps leading up to the building. Separate playgrounds are located at the rear and south of the building; the girls' playground adjoining the north entrance, the kindergartners' at the rear and the boys' at the south entrance.

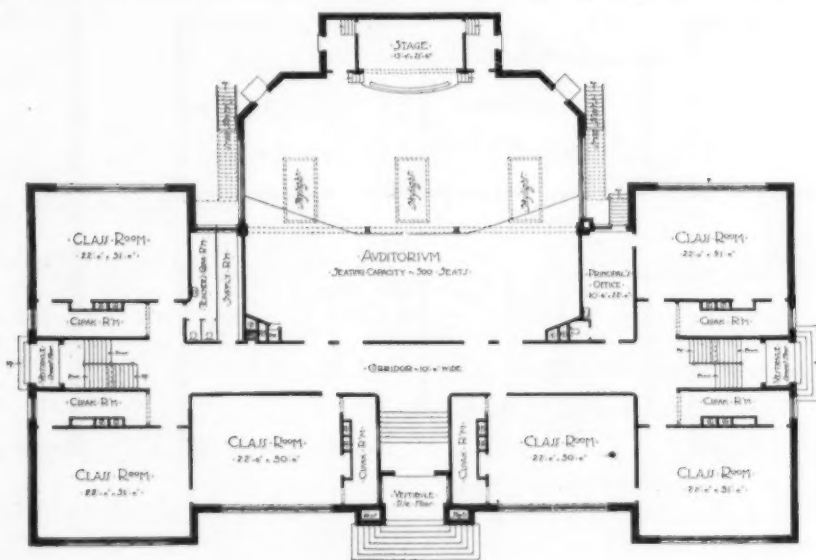
The level portion of the terraces are to be devoted to lawns and gardens, while the sloping part is to be covered with a kind of moss to prevent washing.

The building is a two-story and basement brick building, 156 ft. long and 73 ft. wide, with a one-story extension 34 ft. by 70 ft. in the rear, containing a stage and the front portion of the auditorium. The basement is arranged

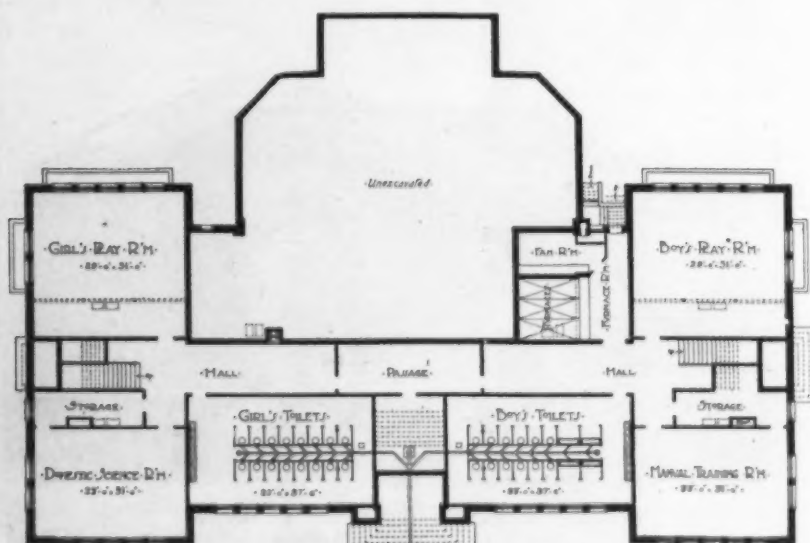
so that the sexes are kept entirely separate. In the north end are located the girl's play and lunchroom, domestic science room and girl's toilets; in the south end are the furnace room, the boy's play and lunchroom, manual training

and boys' toilets. The hall is extended at either end to provide space for bicycle racks, while the center portion has a janitor's room and a storage room 10 ft. by 28 ft.

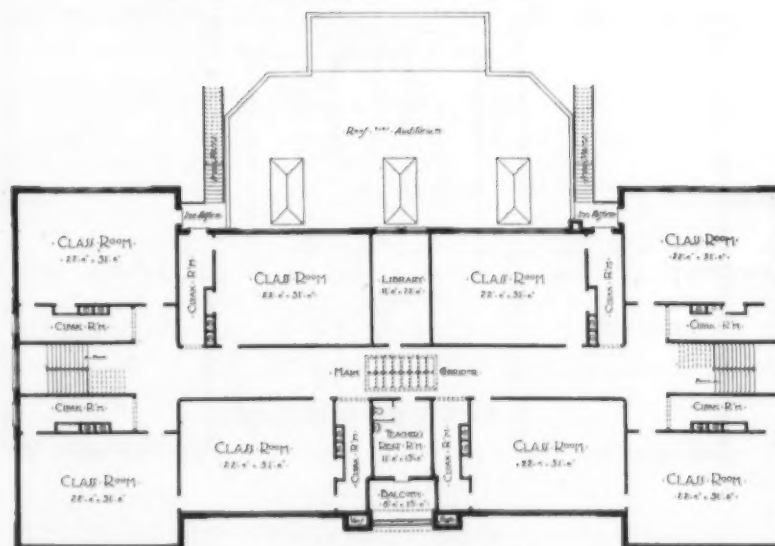
(Concluded on Page 28)



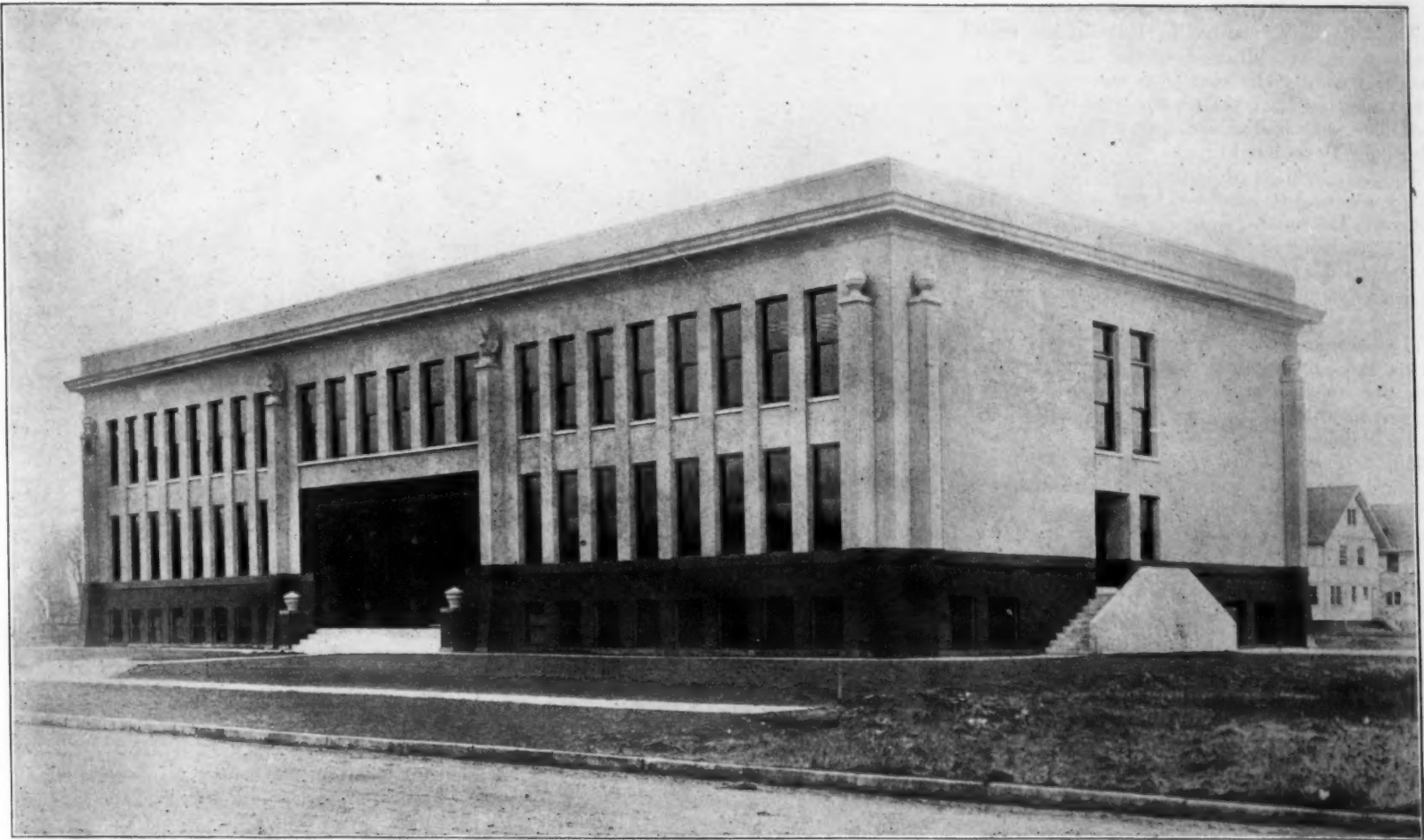
FIRST FLOOR PLAN.



BASEMENT PLAN.



SECOND FLOOR PLAN.



NEW GRADE SCHOOL, EVANSTON, ILL.
Raeder & Wood, Architects, Chicago, Ill.

EVANSTON SCHOOL.

The greatest single fault of American school-house construction during the past decade has been the disregard of precautions against fire and panic. The Collinwood disaster, in which nearly two hundred children lost their lives first brought home the danger of wooden school buildings. While that was five years ago, still the United States Bureau of Education says in a study of schoolhouse conditions that there is surprisingly little provision for fireproof school buildings in recent school legislation reported to the bureau.

In this situation a building like the new Grade School at Evanston must command the admiration as well as the serious study of school boards. For safety and simplicity the school can hardly be excelled. It is absolutely fireproof, having been constructed of brick, concrete and terra cotta.

The exterior has just enough ornament to relieve the absolute plainness of the walls. The brick walls are faced with stucco and the cornice and the pillars flanking the entrance are of colored concrete. The minor walls and floors are made of concrete and fireproof tile.

The basement contains in addition to the heating and ventilating apparatus, two large playrooms which may be cut up for manual

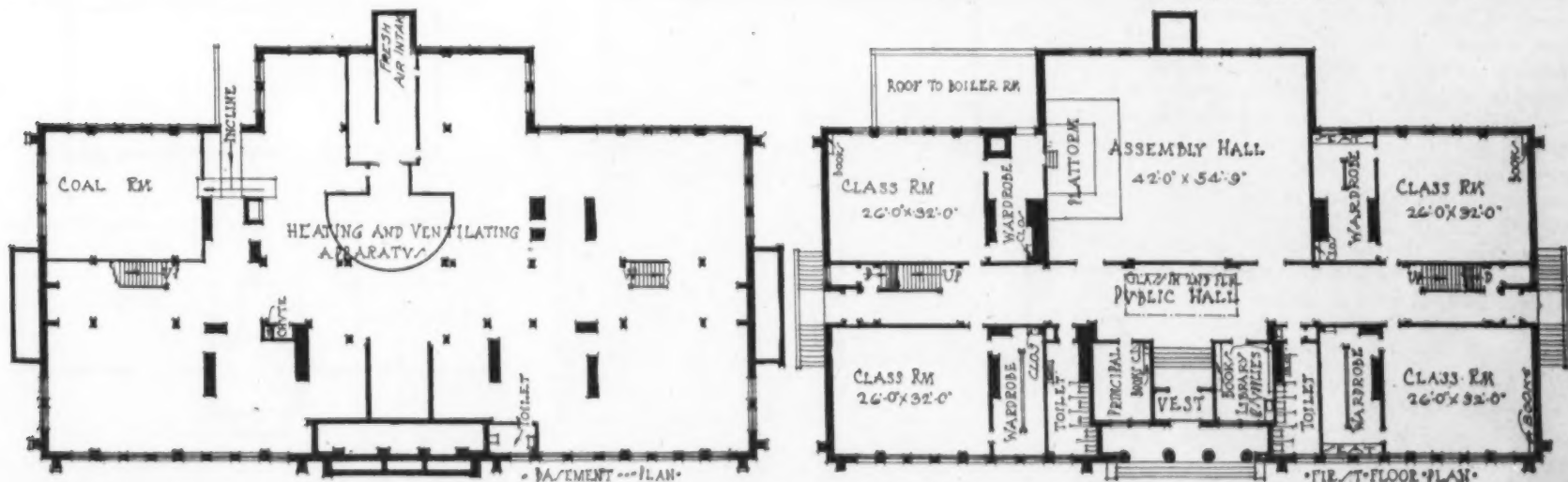
training or domestic science if these subjects should be introduced. On the first floor there are four standard classrooms, a library, an office for the principal, and an assembly hall with a seating capacity of four hundred. On the second floor there are six additional classrooms and a teachers' room.

The classrooms are finished uniformly with concrete floors, plastered walls and ceilings, and

a mahogany wood-trim. The rooms on the second floor have in addition to the ordinary windows, large skylights for supplementary top light. Two of the upper-grade rooms are fitted with tables and chairs to permit mobility and freedom in study and recitation of the classes.

The building is heated and ventilated by means of a plenum-steam system, deriving power

(Concluded on Page 22)



A THREE-ROOM SCHOOLHOUSE.

The City of Edwardsville, Illinois, has been vigorous in providing new and good school facilities during the past three years. During that time they have built a \$60,000 high school, a \$25,000 parochial school, and a \$13,000 grade school for the colored people.

The last mentioned building is designed in a very pleasing style, and is up-to-date in every respect. The outside walls are of hard red brick with black headers, laid in black cement mortar. The mottled appearance of the outside is very attractive, and it is safe to say that it will well withstand the ravages of time.

The basement contains boys' and girls' toilet rooms, large gymnasium that at present will be used for an in-doors play room, and another large room that in time may be devoted to Domestic Science.

The first floor contains four classrooms of standard size, with splendid light, cloakrooms connected, and an excellent ventilating system through the cloakrooms. As will be seen by the sketches, the two classrooms at the rear can be turned into one large room by means of a folding partition. The principal's office is on a Mezzanine floor between the first floor and the attic.

The building is fully equipped with all apparatus necessary. The plumbing is of the open sanitary type, designed especially for such a building. Each floor and the outside playgrounds are provided with sanitary drinking fountains. The heating system is steam direct-indirect; in its construction provisions have been made to bring fresh air into all the rooms through the radiators and to exhaust the foul air through the cloakrooms.

Some considerable attempt has been made at beautifying the grounds and it is the intention of the school board to keep the grounds in a manner that will be pleasing to the community.

The detail cost of the building is as follows:

General contract	\$ 9,997.00
Extras less deductions....	37.65
Plumbing and Heating....	2,331.00
Hardware	86.10
Boiler foundation	10.00
	<hr/>
	\$12,461.75
Architect's commission ...	601.30
Abstract of title.....	15.00
Plat and survey of grounds	15.00
Advertising for bids, etc..	35.85
Furnishings—	
Window shades	49.17
Repairing desks	114.00
Grading and cinders.....	224.70
Inside granitoid walks....	112.08
Outside granitoid walks...	115.76
	<hr/>
	\$13,745.61

L. Pfeifferberger & Sons of Alton and East St. Louis were the architects.

Architecture a Profession.

Architecture is not only an art, and the long and thorough training necessary for the attainment of even a modest proficiency in its practice classes it not only as an artistic profession but as a scientific profession requiring a breadth of knowledge probably greater than is required in any other profession. The future health and well-being of the Nation is, to a great extent, in the architect's hands. Social progress is his care, and in the public interest, even if not in his own, and the architect in whose hands the remedy lies should be surrounded by an artistic atmosphere which will eventually lead to the progress of art or the evolution of a National style of architecture.

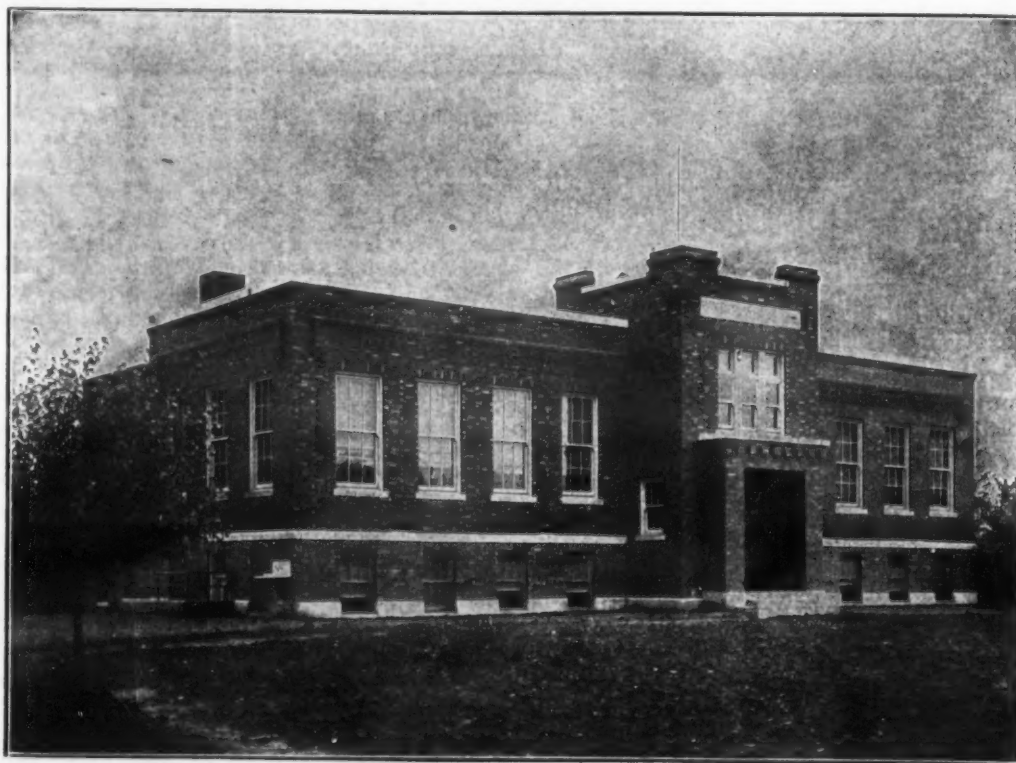
—Todd.

A MODEL COUNTRY SCHOOL.

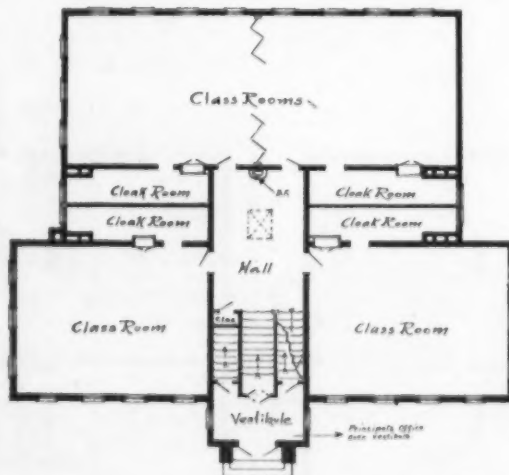
Although 43 per cent of all the pupils enrolled in public schools in the United States attend one-room country schools, it is a remarkable fact that country-school architecture has ad-



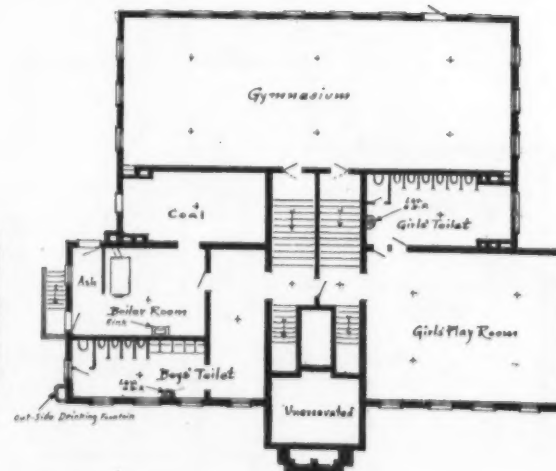
WILLIAM BRANTLEY HANNA SCHOOL, PHILADELPHIA, PA.
J. Horace Cook, Architect.



LINCOLN SCHOOL, EDWARDSVILLE, ILL.
L. Pfeifferberger & Sons, Architects, Alton, Ill.



Floor Plan New Lincoln School Edwardsville Ill.
L. Pfeifferberger & Son, Architects
Alton Illinois



Basement Plan New Lincoln School
Edwardsville Illinois

vanced more slowly than any other type of school construction. This has not been due to the fact that the subject has not been given due attention by architects or experts in school sanitation. The individual attitude of country school boards, the indifference of the rural population and the ignorance of country-school authorities have all contributed their share toward keeping the "little white schoolhouse" in a class which is aptly termed "chalk box" architecture.

An interesting and commendable departure from the ordinary type of country schoolhouse is the new Warren Township School No. 8 in Marion County, Indiana. The exterior of the building is of a red-brown brick, laid in black mortar. The brick work has a tight vertical joint and a deeply raked horizontal joint, giving a beautiful effect which tends to diminish the height of the building. The trim is of buff Bedford stone.

The basement which is used in part for a playroom contains the heating system consisting of a hot-air furnace supplying fresh warmed air to the classroom. The fuel room has a capacity of twenty tons of coal which is considered sufficient for an entire school year.

The classroom is well lighted from windows filling the entire north wall. The decoration of the room has been carefully considered; the walls and ceiling are sand-finished plaster, painted in two shades of cream, with a flat oil-finish. The woodwork is stained a light "Early English" brown to harmonize with the finish of the walls.

A feature of the classroom is the built-in bookcase which provides shelf and drawer space for storing teaching materials, classwork and the school library.

The cost of the building, complete, including the furnace, was \$5,236. The architect was Mr. W. H. Albersmeier, of Indianapolis.

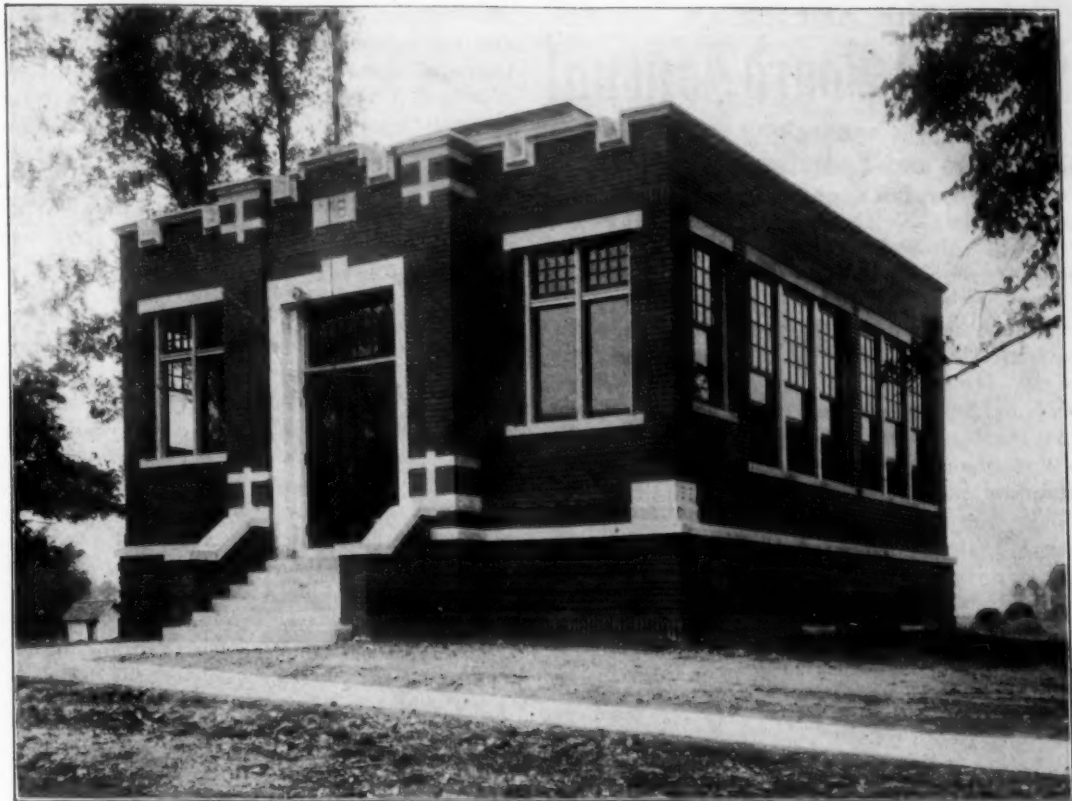
A Property Record.

Modern accounting methods for schools include data which was not dreamed of as necessary even a decade ago. Thus the "property ledger" is an innovation which is just beginning to be appreciated.

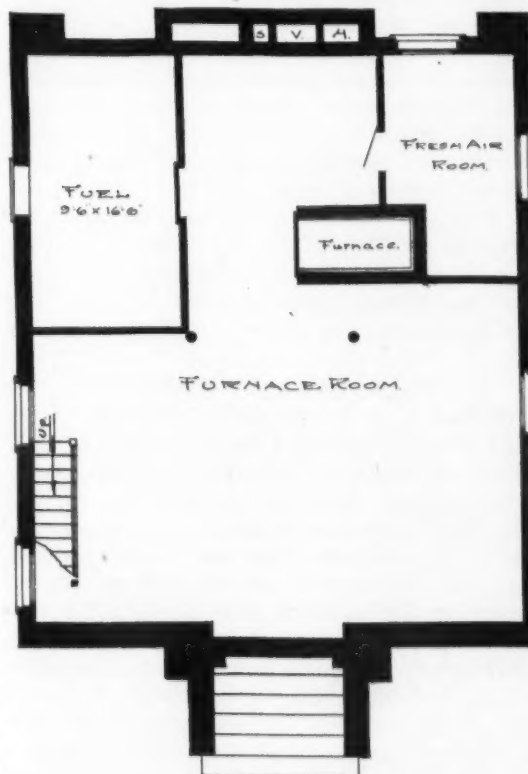
Baltimore has such a record of its properties which is proving of immense value in bringing together in one easily accessible book all the historical and financial facts available. The record includes the following items:

Title of property.....
Location (description and map).....
Ordinances (dates and numbers).....
Appropriation (amount).....
Tax LeviesLoans.....
Property Deeds (file and number).....
Contracts (files and dates).....
Year work was authorized.....
Architects.....
Contractor.....
Contract Price.....
Lot (Dimensions).....Additions.....
Materials of Construction.....
Height of Building.....
Number of Rooms.....
Cost of Site.....Original Structure.....
Cost of Additions.....Equipment.....
Cost of Repairs and Improvements.....
Miscellaneous Expenditures.....
Total Cost.....

The book is so arranged that the data can always be brought down to date.



SCHOOL NO. 8, WARREN TOWNSHIP, MARION COUNTY, IND.
Mr. A. H. Albersmeier, Architect, Indianapolis, Ind.

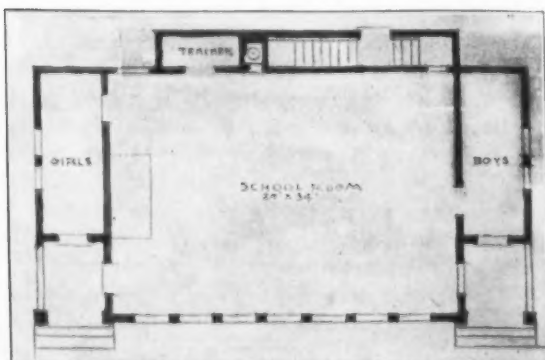


BASEMENT PLAN
Scale 1/8" = 1'-0"

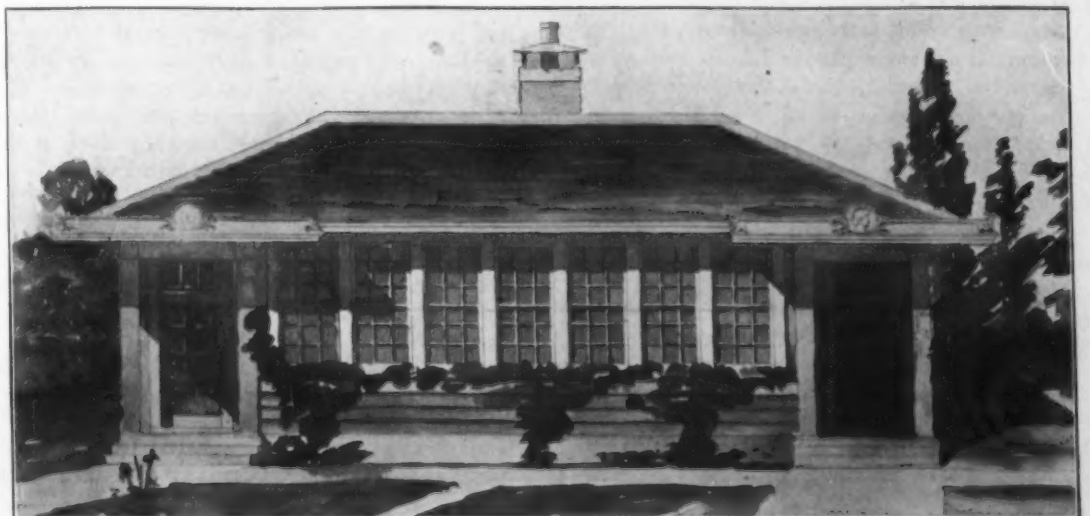


FIRST FLOOR PLAN
Scale 1/8" = 1'-0"

FLOOR PLANS, SCHOOL NO. 8, WARREN TOWNSHIP.



FLOOR PLAN, URBANDALE SCHOOL.



NEW SCHOOL, URBANDALE, IOWA. O. O. Smith, Architect, Des Moines, Ia.

THE AMERICAN School Board Journal

DEVOTED TO
Legislative and Executive School Officials
WILLIAM C. BRUCE, Editor

EDITORIAL

THE TEACHER'S REWARD.

In touching upon the question of teachers' salaries, Dr. P. P. Claxton said to the members of the National Education Association assembled in convention last month, at Salt Lake City: "I have taught school for many years, but in these years I have not earned enough to maintain my family properly for six months. Chalk dust does not make good breakfast food, nor do examination papers keep the furnace going for very long." This statement reflects very accurately the general feeling of educators toward the problem of salaries.

The report of the committee on salaries which the association received and discussed at Salt Lake City is proof positive that the teachers who have been asking higher compensation have not overstated their case but have been rather too modest in their demands. It shows that, while the cost of living has increased 44.11 per cent in the fourteen years preceding 1912, the salaries of teachers have practically stood still. The report proves by actual figures that teachers have but a scant margin over actual necessities and are able to save but little, that few acquire property or a competence for old age, and that they are paid much less than other public employees and less than skilled manual workers.

For school boards the report is of surpassing importance because it proves beyond the possibility of reply the need of a general higher level of salaries and imposes the duty of meeting as best they may this higher level. This raises again the old dilemma of insufficient funds, sorely strained by the ever-growing demands for wider school facilities, and more inclusive courses of study. To say that tax levies should be increased suggests a further problem that is not easy of solution.

From the purely human point of view the present salaries of teachers are a reflection upon the American spirit of public generosity. Because teachers adhere to their profession with a loyalty not met with in other callings is no reason why they should have inflicted upon them a palpable injustice. The whole problem is up to the school boards of the country and it must not be evaded.

ST. PAUL'S SCHOOL CONTROL.

The city of St. Paul in establishing its new system of commission government has abolished its board of education and has centralized the control of the schools in a single commissioner of education, elected at large as one of six commissioners who with the mayor, and the city comptroller govern the city. He has complete executive authority of all school matters under the general legislative control of the commission.

The St. Paul plan has, we think, several features which place its form of school government in advance of the Sacramento and Nashville plans in which school control is also vested in a single commissioner.

The St. Paul plan provides for a citizen's advisory board to consist of twelve members chosen by the commissioner of education, one for each of the twelve wards of the city. These boards are given the duty of visiting and inspecting the schools and of reporting to the commissioner the needs of their respective wards. They constitute a direct means of con-

tact between the public and the commissioner and are intended to serve as a check and as a means of expressing public opinion on all matters of school policy. The commissioner is required "to call together in advisory session at least once a month—the whole body of school inspectors—and to advise with them as to the needs of the schools and what may be done for their improvement." The meetings are to be public and the proceedings are to be a part of the public record.

A second advisory board consists of teachers and is formed by the superintendent of schools. This official is by the charter given largely increased powers in the educational direction of the schools. The teachers' advisory board is intended to convey to the superintendent and the commissioner of education "the opinions and the advice of the teaching body upon problems relating to the designation of proper textbooks, the adoption of courses of study, and the methods of teaching in the schools." The purpose and value of teachers' advisory boards are well understood even though they are not yet generally accepted as a device for improved educational administration.

Under the St. Paul charter, the teachers' advisory board may make recommendations and suggestions upon all educational policies but it remains within the discretion of the superintendent and the commissioner of education whether they will adopt them.

The new St. Paul charter will clear up a situation that was for many years a disgrace because of the political and partisan interference in professional school matters. Whether the very intimate connection of the schools with the municipal commission and the concentration of power and responsibility in a single layman will prove satisfactory, only experience can tell. Certainly the ideas of the professional and citizens' advisory boards offer a measure of popular participation and interest which will be watched by other communities.

"CONTRACT JUMPING."

Nothing is so disturbing or annoying to a board of education and a superintendent as the sudden resignation of a teacher or principal late in the summer vacation. At that time it is practically impossible to find a capable person fitted for a particular place and it is not infrequent that the work of an entire year suffers because of the want of someone qualified to meet a particular situation.

Of all professional misconduct of which teachers may be guilty none is so worthy of summary punishment as "contract jumping." A teacher's contract should be considered a serious obligation to be broken only for the most serious reasons. It is not like an ordinary business agreement because it involves not a mere material service but a spiritual, a public service of vital importance to the state.

At present, the laws amply protect teachers but can hardly be enforced by school boards against unscrupulous instructors. A remedy that has been suggested is a law which will prevent any board from hiring an instructor already under contract. Perhaps such a law would be undesirable on the principle of the old saying that an unwilling servant is a bad servant. Certainly it could not be enforced between states. It might however act as a deterrent and shame teachers into adopting a new standard of professional ethics.

A STATE SCHOOL BUILDING COMMISSIONER.

The state of Minnesota, which has been a leader among the Middle-western states in progressive school legislation, has just created the office of State Commissioner of School Build-

ings. The office which is the first of its kind in any state is under the direct control of the superintendent of education and has been well filled by the appointment of Mr. S. A. Challman.

The Minnesota education department has for several years felt the want of some central authority to act in an advisory capacity in the planning of new and the remodeling of old school buildings. It has felt that hundreds of buildings fall short through sheer want of familiarity with the problems of arrangement, lighting, ventilation, sanitation, safety, sizes of classrooms, etc., etc. This lack should be overcome in part by comprehensive minimum requirements and by a form of state control over all new projects. A commissioner intrusted with the duty of passing upon all plans, with the power of enforcing needed changes, and with the function of acting in a consulting and inspecting capacity was urged. A law passed by the recent legislature vests in the State School Building Commissioner all these powers and duties.

Mr. S. A. Challman, who has been appointed, is almost ideally fitted for his new position. As state high-school inspector he has visited practically every building in the state and has made school architecture an object of study during many years. He will have a large opportunity for service. The progress of his work will be watched with interest by all who are seeking the advance of school designing and construction.

MR. FINLEY CHOSEN.

President John H. Finley of the College of the City of New York has been chosen State Commissioner of Education for the Empire state and has accepted the position.

Dr. Finley is a man of unusual energy and force of character. His career is ample evidence of his ability as an upbuilder of educational institutions, as an organizer of educational forces, and as a pioneer for democracy in education.

In the office of state commissioner, he will find a strongly centralized and highly efficient organization for the control of the New York State schools. He will find the ablest single group of school administrators now working in any state.

But he will also find work in plenty to call for the use of all his powers and all his strength. New York State is one of the centers of educational unrest and the clamor for school reform is insistent as well as loud. The problems of vocational education, of the readjustment of the high schools, and of the rural schools will promptly force themselves upon him for attention.

THE HIGH-SCHOOL FRAT.

The high-school secret society is meeting opposition from a wholly unexpected quarter in the person of the federation of college and university fraternities. At a conference held recently in Chicago, representatives of fifty fraternities adopted an agreement that the respective societies should do all in their power to suppress their juvenile imitators.

The fundamental reason for the college fraternity is that it supplies a very practical substitute for home restraint to its members who are outside the influence of their families for an extended period of time. It is a decided stimulant to better scholarship, to discipline, to college loyalty, and to an interest in the activities of college-student life. The college fraternity has its faults, and serious faults, too, but the good so much outweighs the evil that college authorities generally recognize its desirability and are co-operating toward perpetuating it.

In the high school, no good reason exists for organizations imitating the college societies. The boys and girls are not of an age when they

are able to prevent the "frats" from deteriorating into mere cliques and factions, exhibiting a childish snobbishness and officiousness that makes them obnoxious and positively harmful to the school, to their fellow-students and most of all to themselves. The average high-school frat is a mere excuse for organized misbehavior, carried on outside the influence of the school and of the home.

Directly the opposition of college fraternities to the high-school frats must necessarily be limited to closing of its doors to the latter when their members enter the higher institutions. A boy who expects to go to college will hardly join a "frat" and sacrifice the greatest expected pleasure of his college days to come. Indirectly, the disapproval of the college societies will have a strong moral influence in dissuading even students who expect to end their education in the secondary school. Perhaps, too, the short-sighted parents of "frat" members may be made to understand what college boys think of the societies they are supporting in rebellion against constituted public-school authorities.

A REFRESHING REPORT.

The most refreshing and encouraging school document which has come out of New York City in many years is the semi-annual report of President Thomas W. Churchill of the board of education, issued last month.

Mr. Churchill opens his discussion of his first six months' administration with the statement that the board of education has upset the theory that it should not presume to deal with education at first hand but that it should confine itself to matters of finance, and "perfunctory voting upon measures prepared by educational experts."

Some years of adherence to this theory had built up a system so unsatisfactory as to result in a compulsory investigation of the schools and in a published declaration of their formalism, rigidity and obsolescence. In a review of the investigators' findings, the head of the commission concluded the service of education in this city to be seriously defective and the board of education at not sufficiently close quarters with its work. But several months before the publication of these criticisms you, from your own experience and from your own desire of progress, had anticipated them by co-operative action in taking up, considering and passing upon vital questions directly concerned not only with sites, buildings and supplies, but with the actual training of children."

The report then goes on to discuss and to offer recommendations upon fifteen distinct and important problems with which the members have grappled and which they must solve. Twenty-one enactments of importance, involving some far-reaching changes in educational and administrative policy are briefly summarized. They are too lengthy to be even listed here.



An Unwelcome Vacation Melody.
—Berryman, Washington Star.

One of the abuses which Mr. Churchill discusses is quite common to other school systems. He says:

"There had grown up a usage of printing long and discursive reports from members of the supervising force, often arbitrarily edited for the omission of matter not in accordance with a predetermined but unproved policy of administration. Recommendations intended for this board were withheld until the most opportune time for their consideration had passed."

The results of the new policy are extremely suggestive.

"You have, this year, reduced delay and addressed yourselves to prompt and efficient consideration of proposed measures as no board before you has done since the consolidation of the city. There is still need for this ordinary business promptness. The tendency of educators to produce literature for academic display, to linger over the compilation of voluminous reports until a good part of the next year has passed away, is as wasteful as it is unnecessary. The committees of the board should devise ways of clearing their calendars. This board should continue to require that the reports of its agents be made promptly, based upon real observation rather than upon personal surmise, and exhibit of proper economy as to type and paper."

Discussing "investigations" of the schools and suggestions for revolutionary reforms Mr. Churchill says:

"In your correction of some of the most glaring defects of the schools you have been met with a charge of 'piecemeal' legislation. You have received the suggestion of a secretary of a public education association that another commission be appointed to investigate the work of the last investigators and to propose, on new lines, an entire educational system. You are too familiar with the history of similar propositions to be reminded of what such a suggestion means. Commissions form and meet and draft their theories. Beyond a printed report they come to naught. To propose to you that needed repairs in our fabric must wait until this whole great structure shall be rebuilt is the height of absurdity. When you discover a leak in the roof, repair it. If a side wall is cracked, mend it. Piecemeal correction of each abuse as you discover it is so distinctly the common sense way of improvement that I commend it to you as a regular method of progress. We are not ambitious to pose as system-builders. We are content to right the obvious wrongs, that have existed too long in the schools."

In conclusion Mr. Churchill urges that the schools arouse themselves from a "bureaucratic, formalized machine" to a "living and adaptable service."

"No demands of routine or attention to correcting defects in the machinery of the system should be permitted to deflect any longer the energy and talent and devotion of the teaching force of this great city from the fact that system, machinery, obedience to orders, covering a course of study, completion of records, is not the purpose of the teacher's employment. * * * None of your teachers desires the abolition of intelligent guidance; none prays for educational anarchy; but they do desire and deserve the fairest field for their best service. The realization of the legitimate purpose for which the people liberally offer of their substance demands that you shall continue your efficient labors to perfect a system under which those who need the strictest governance may be made to give *quid pro quo* to the schools, and at the same time that the great mass of teachers who serve for more than money wages may not be affronted, chafed and debilitated by petty rules and mechanical restrictions."

Mr. Churchill's report gives reason for the hope that the New York schools will survive gloriously the evil times through which they have passed, and that the trial of the past three years will result in a better, and a more efficient system.

MRS. YOUNG RETIRES.

Just as we are going to press comes the news of the resignation of Mrs. Ella Flagg Young as superintendent of the Chicago schools.

The reason given by Mrs. Young for her act is not unlike the cause of the retirement of the majority of school administrators who are dependent for their official life upon the pleasure of the members of a board of education. In a public statement given out on July 24, Mrs. Young said: "There came to be a state of antagonism toward me and any educational policies which I might adopt that led to discord and lack of harmony in school management. These members whom I will not name opposed every policy or measure which I advocated."

Mrs. Young has been connected with the Chicago schools since 1862 and has been successively teacher, principal, district superintendent, president of the normal school and superintendent. For seven years from 1899 to 1905 she was professor of education in the University of Chicago.

Her resignation closes a brilliant and most honorable public career, unequalled by any woman in American educational history and approached by but few men in real service.

MR. PEARSE'S CHANGE.

Superintendent Carroll G. Pearse of Milwaukee has signified his intention of resigning as head of the schools to accept the presidency of the Milwaukee State Normal School to which he was officially elected on July 15.

Mr. Pearse has been in Milwaukee nine years and has in that time practically revolutionized the system of administration and the course of instruction in the elementary schools. In June he was re-elected for a three years' term by practically a unanimous vote of the board. His resignation is generally understood to have been caused by a desire to follow personal inclinations for higher educational service. The Milwaukee Normal School is the largest in Wisconsin and is one of the most important in the country. It is expected that under Mr. Pearse it will greatly widen its sphere of activity and influence and will become a center of educational research and experiment.

In the July issue was printed a comment upon the late appearance of the Educational Directory, 1912, issued by the Bureau of Education. We are informed that the "Directory" was first distributed in January last, just six weeks after the date of compilation. The copies which were received in the "School Board Journal" office came to the editor on June 18, 1913.

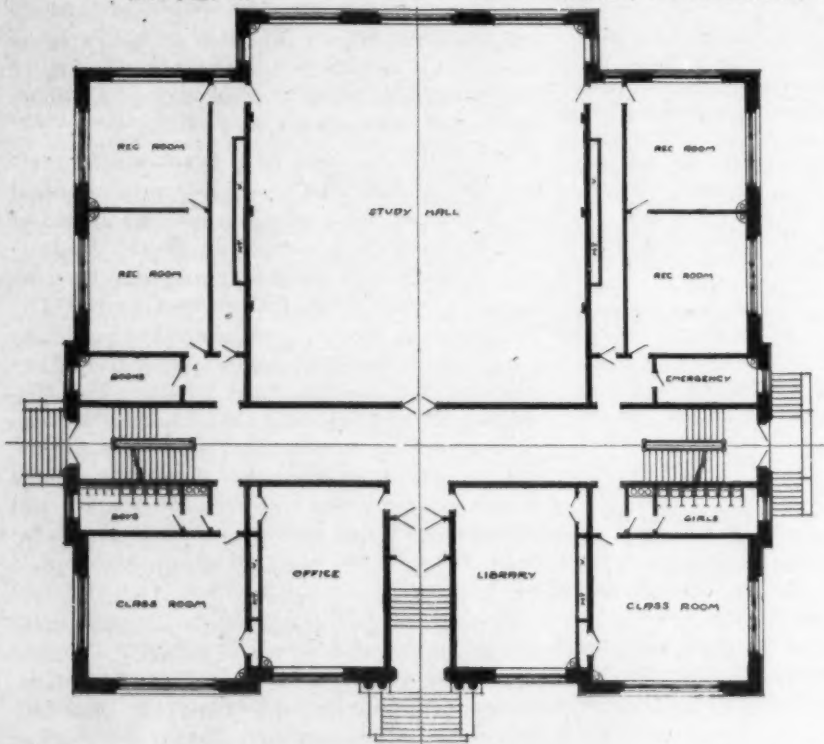


Child Labor.
—Cory, New York Journal.

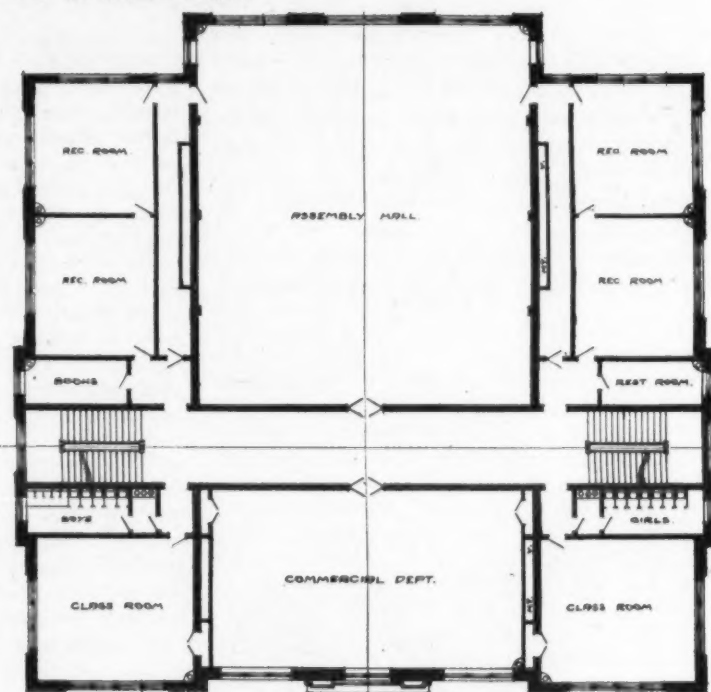


(See page 28)

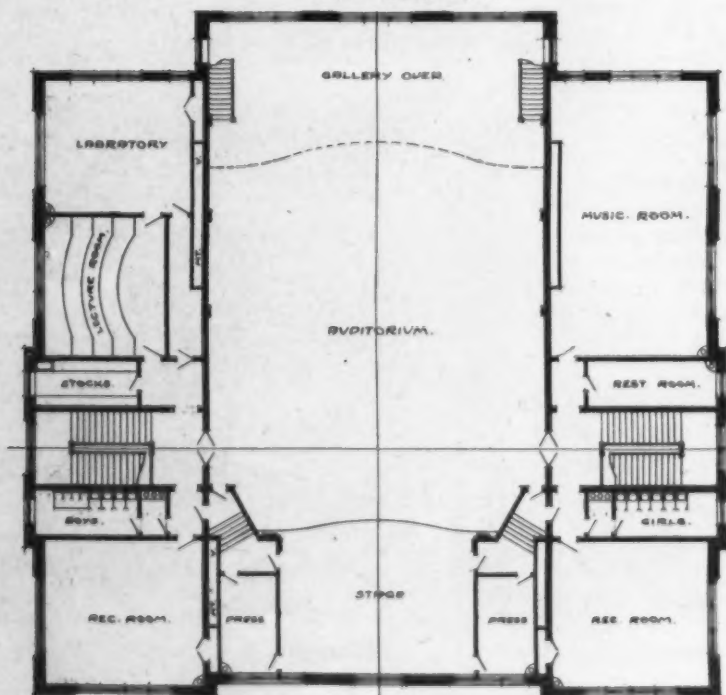
HIGH SCHOOL, WAYNESBORO, PA. Mr. James W. Woltz, Architect.



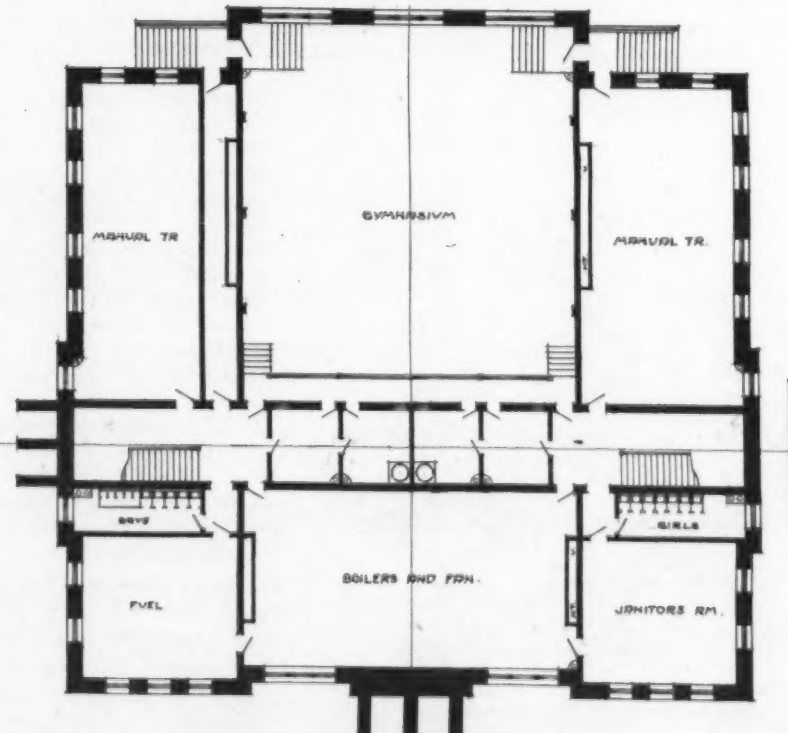
FIRST FLOOR PLAN.



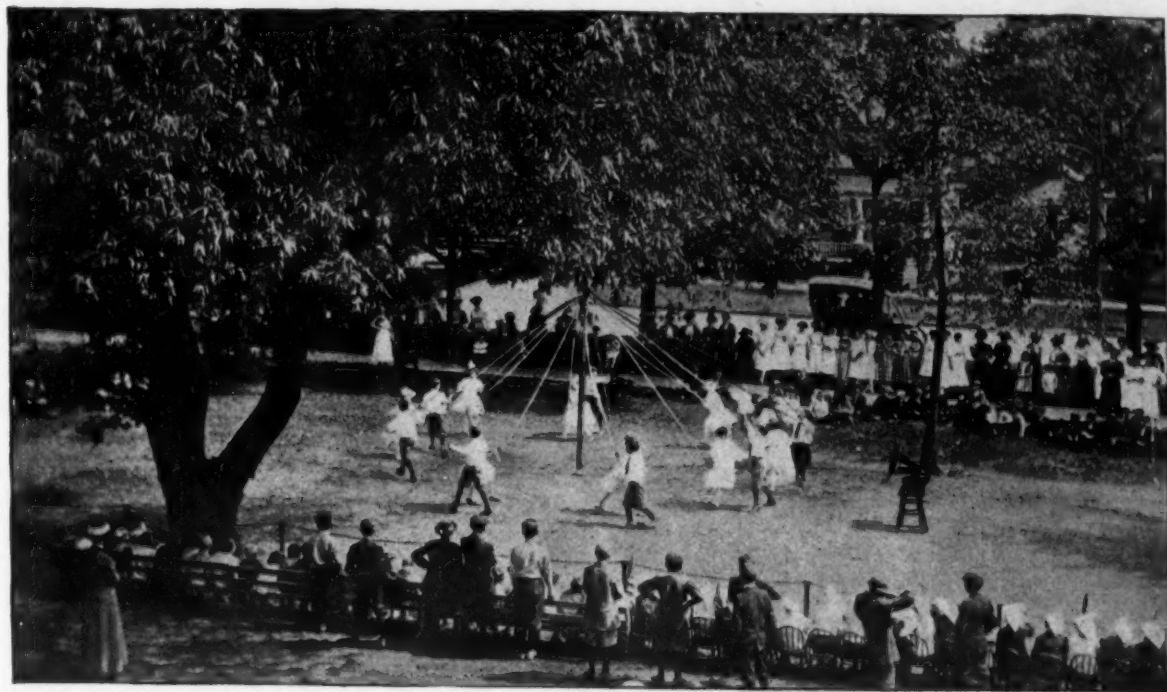
SECOND FLOOR PLAN.



THIRD FLOOR PLAN.



BASEMENT PLAN



May Pole—Fifth and Sixth Grades, Washington School, Port Huron, Mich.

A brass band for your playground this summer—all day long and every day.

Calisthenics and games are spiritless and dull without music. Folk Dancing is impossible without the right music properly played with snap and vigor.

Your play may be orderly, the children attracted, interested and taught by using splendid rousing music to accompany your activities.

Let the Victor help you this summer.

Ask any Victor dealer to bring out a Victor and show you just how it provides the very music required for Folk Dances, Singing Games, Waltzes, Two-Steps, Marches etc. for Calisthenics.

Write us today for booklet and full information about the value of the Victor in school work.

Public School Educational Department
Victor Talking Machine Co., Camden, N. J.

The Victor V with wood horn, price \$68 complete, is specially recommended for general school work.

Victor



Remember, Mr. Superintendent



that for your **INFORMATIONAL STUDIES** in both grade and high schools you need the **NATURAL SCIENCE COLLECTIONS** of Mr. W. E. Davis.

Give your pupils the complete and graphic story of the great industries. Make **history, geography** and **commercial studies** tangible and intelligible.

Write today for full information on our **NEW CABINET** as illustrated above.

Natural Science Co.
CARTHAGE : : : : MISSOURI

MEDART Gymnasium Apparatus AND Steel Lockers

are recognized as being standard for Public Schools by many leading authorities. Let us tell you more about this.

Maybe we can help you decide some problem of equipment. Our experience has been wide and varied.

Any of our catalogs are free for the asking.

FRED MEDART MFG. CO.

DeKalb and President Sts.
ST. LOUIS, MO.

WAYNESBORO HIGH SCHOOL.

(See page 26)

The planning of a high school building is never a simple problem when the educational and administrative aspects are given due attention and a serious attempt is made to meet the prospective growth and changes in the curriculum. Just here it is well for the architect commissioned to draw plans to take counsel with the professional head of the school and with his associates. It may be said without fear of contradiction that a high school building will be successful directly in proportion to the co-operation which exists at the time of its planning between the superintendent and principal and the architect.

The new high school at Waynesboro, Pa., is the result of a well-directed co-operative study of local conditions by the superintendent, Mr. J. H. Reber and the architect, Mr. James W. Wolz. The building is nearly square, measuring 112 by 115 feet. It is constructed of steel framework, stone and brick walls, terra cotta cornices and a slag roof. The outer walls are faced with iron-spot fire-flashed brick, trimmed with brown stone, producing a very restful, dignified combination. The ornamentation has been reduced to the simplest forms which the Renaissance style will permit and relies for effect chiefly upon the character of the materials and the simplicity of the outlines.

The building is arranged so that all of the activities will radiate from the large study halls on the first and second floors. These afford an individual seat for each of the 650 pupils who may be accommodated. Corridors giving direct access to all the classrooms, and laboratories and to the stairs surround the study rooms on three sides, an arrangement which adds much to convenience in changing classes.

The basement has as its chief feature a large gymnasium, connected with dressing and shower bath rooms. On the first floor there are in addition to six classrooms, a library and an office so placed as to be easily accessible from the

main entrance. On the second floor the commercial department occupies a single large room in which stenography, typewriting and accounting are taught.

The laboratories and science lecture rooms are placed on the third floor. Here too is a music room so placed that the vocal classes will not disturb other recitations. The auditorium is fitted with standard opera chairs and will seat 1,000 persons comfortably. It has a fully equipped stage for school entertainments and amateur theatricals.

The construction of the building is semi-fireproof. The walls are wholly brick and the floors above the heating apparatus and in all the corridors are of steel and tile. The stairways are borne by iron frames and have slate treads and rails. The classrooms have hard maple floors, sand-finish plastered walls and ceilings, and oak and yellow-pine trim.

The heating plant consists of a steam plenum system with an electrically driven fan in the basement, and supplementary direct radiation in the classrooms. The cost was \$11,400.

The sanitary equipment includes toilet rooms arranged in stacks and fitted with a special type of flushing closets and continuous spray urinals.

The building, including heating, ventilation and sanitary work, cost \$84,000, or 12½ cents per cubic foot. The movable equipment, site, retaining walls and grading bring the entire cost to nearly \$105,000.

REDONDO BEACH GRAMMAR SCHOOL.

(Concluded from Page 26)

Ample closets adjoin the work rooms for storing the finished work of the pupils as well as raw materials, etc. In the hall, near the domestic science room, is a dumb waiter running up to the auditorium floor, convenient for school banquets, etc.

The furnace room contains the heating and ventilating apparatus, and the vacuum cleaner

which is piped to all parts of the building.

The first floor has six classrooms, (two of which are devoted to kindergarten work), the principal's office, supply room, teacher's cloak room and an auditorium containing 500 fixed seats, a stage 15 ft. by 21 ft. with dressing rooms, etc.

The front part of the auditorium has a level floor for a distance of 30 ft. the rear portion is on a slope to connect with the main floor of the building.

Each classroom has a cloakroom 7 ft. wide, by 22 ft. 6 in. long, and a built-in teacher's closet.

The main corridor is 10 ft. wide. The front entrance corridor is 14 ft. wide, with an entrance vestibule 9 ft. by 12 ft. with red tile floor. There are also vestibules and exits at each end of the building.

Where possible, all classrooms have connecting doors, so that one teacher can look after both rooms, in case of the temporary absence of the other teacher.

The second floor has eight classrooms, library, and a teachers' rest room which opens on a balcony 8 ft. by 13 ft., overlooking the ocean and the front part of the school grounds. The striking feature of the second floor is the arrangement of the exits, which are four in number; one at each end of the main corridor, and two exterior iron stairways connecting directly with the corner classrooms, and with the main corridor by means of the open cloakrooms.

The appearance of the main corridor is improved by the short wings or extensions at each end, and an abundance of light and ventilation is provided by the skylight at the center.

The exterior walls are built of brick covered with stucco above the sill course of the first story; the lower part is faced with a hard-burned ruffled or tapestry brick, which is also used for the trim around windows, under the cornice and for the sill, bands, etc., on the end elevations.



Protect the Children

By removing GERMS and DIRT

Scrubbing Floors and Woodwork with CHLORO-NAPHTHOLEUM Solution does all that soap and water can do and it *also* disinfects thoroughly.

Soap and water *do not* disinfect: --- They leave the germs to breed in the cracks between the boards.

Chloro-Naphtholeum is *very economical* in use, costing less than half a cent per gallon in solution.

Unlike poisonous disinfectants, it is absolutely safe to handle.

===== ADDRESS FOR FULL PARTICULARS =====

Educational Department

WEST DISINFECTING COMPANY

12 East 42d Street

NEW YORK, N. Y.

The walls below grade are concrete, water-proofed on the outside by a heavy coating of hot asphaltum.

The basement floors are of concrete, finished with concrete floor dressing; all other floors are of vertical grain Oregon pine, finished with a hard oil finish, except in the kindergarten and first grade rooms, which have varnished floors.

All interior walls and ceilings are plastered with a hard white finish, troweled smooth and tinted with a washable wall finish in buff and tan with cream ceilings, except the auditorium, which is sand finished tinted in soft green.

The roof is built up of four layers of 15-lb. felt, sealed together with hot asphaltum and covered with screened gravel.

The building is equipped with 18 inter-communicating telephones. It has a vacuum cleaning system piped to all rooms and is heated by the plenum system.

The cost of the building complete, including architects' fees, was \$39,165.00, or .078 cents per cu. ft.

The above price also includes the heating and ventilating plant, telephone system, vacuum cleaner complete, and the fixtures and fittings for the domestic science and manual training rooms.

The building was designed by, and erected under the supervision of L. B. Pemberton, 807 Auditorium Building, Los Angeles, Cal.

EVANSTON SCHOOL.

(Concluded from Page 21)

from two boilers, and equipped with a blower and a water-spray washing device.

The sanitary equipment includes stack toilets on the first and second floors equipped with the latest type of flushing closets.

The total pupil capacity of the school is four hundred. It cost a trifle less than \$56,000, or approximately \$187.50 per pupil.

The plans were drawn by and the building was erected under the supervision of Messrs. Raeder & Wood, 77 W. Jackson Blvd., Chicago, Ill.

DR. FINLEY TO BE COMMISSIONER OF NEW YORK STATE.

Dr. John Huston Finley, president of the College of the City of New York, was elected Commissioner of Education of New York State by the Board of Regents on July 2, for an indefinite period to succeed the late Dr. Andrew S. Draper.

In announcing the appointment the Regents made a public statement that Dr. Finley was their unanimous choice and added: "Coming at the comparatively youthful ripened age of fifty years to the great field of constructive and educational work, to which he has been thus summoned, it is confidently anticipated by the Board of Regents that during his remaining twenty years of life expectancy Commissioner Finley will raise the standards and efficiency of public education in the State of New York to the highest degree of pre-eminence and leadership."

Dr. Finley is considered one of the most constructive educators in the United States. As he had said of himself, his spirit is that of a pioneer and his career has evidenced that he does his best work in initiating changes and building up institutions with which he is connected.

Dr. Finley was born in Grand Ridge, Ill., on October 19, 1863. He was a farmer's boy. At 17 he was in charge of a district school. He worked his way through Knox College and was graduated in 1887 as valedictorian. He studied at Johns Hopkins two years, was secretary of the New York State Charities Aid Association two years and in 1892 he became president of Knox College.

He was at the time the "youngest college president" in the country and proved shortly to be by no means the least able. He quit in 1899 to do editorial work for Harper's and McClure's, but in 1900 he succeeded to the professorship of politics at Princeton. While at Princeton he

and Grover Cleveland became close friends and it was Mr. Cleveland who recommended him for the presidency of the College of the City of New York. Dr. Finley was installed at New York on September 29, 1903.

Dr. Finley has received the degree of LL. D. from Princeton, Wisconsin, Knox, Clark, Tulane, Williams and Dartmouth. While at the city College he has refused the presidency of several universities and colleges. In 1910-1911 he was Harvard exchange professor at the Sorbonne in Paris.



DR. JOHN HUSTON FINLEY.
Commissioner of Education-elect, New York State.



SCHOOL PLAY OUTFITS

Compact—Economical—Efficient

Catalog X-3 gives full particulars

WRITE US

A. G. SPALDING & BROS. Inc.

CHICOPEE, MASS.

Fourth International Congress on School Hygiene

BUFFALO, NEW YORK, U. S. A.

AUGUST 25-30, 1913

Under the Patronage of

Mr. Woodrow Wilson, President of the United States

PRESIDENT

CHARLES W. ELIOT, President Emeritus, Harvard University.

VICE-PRESIDENTS

DR. WILLIAM H. WELCH, Professor of Pathology, Johns Hopkins University.
DR. HENRY P. WALCOTT, Chairman Massachusetts Board of Health.

SECRETARY-GENERAL

DR. THOMAS A. STOREY, Professor of Hygiene, College of the City of New York, New York City, U. S. A.

TREASURER-GENERAL

JOHN H. LASCELLES, Vice-President Marine National Bank, Buffalo, New York, U. S. A.

Preceding Congresses:

Nuremberg	1904	attendance	4,000
London	1907	"	5,000
Paris	1910	"	8,000
Buffalo	1913	Expected	10,000

This Congress will bring together thousands of people interested in school work.

One of the features of the Congress will be a Scientific and Commercial Exhibit in the Auditorium, a room containing over 48,000 square feet of floor space.

Applications for space and further information may be obtained by addressing

RANDOLPH McNUTT, Chairman Exhibition Committee,
520 White Building, Buffalo, N. Y.



THE SCHOOL BOARD AND CONTRACTS.

Estimates for public buildings are proverbially under-estimates—guesses. Engineers and architects who do the most accurate, careful work for private corporations and individuals seem to lose all sense of proportion and much of their ability to figure when a public bridge, a city hospital or a public school are to be erected. "Extras," running up the total cost far beyond the original estimate, are as certain in public work as the seasons and when they are not synonymous with "graft," they are as unwelcome to the taxpayers.

In a recent bulletin, the New York Bureau of Municipal Research discusses the problem of controlling contracts with especial reference to "guess-estimates." The bureau points out that while the continual, unvarying practice of appropriating moneys without a definite knowledge of the final outlay, is in no way illegal, still it is an extremely poor business policy and constitutes one of the causes of inefficiency in city administration. It invariably means that the municipality, the school district, or the state is spending money beyond its means.

In substantiation of its argument the Bureau cites six large projects undertaken by the City of New York upon which the average percentage of excess in the amount finally paid out was 84.9 per cent. In the case of one contract, the Manhattan bridge, the first estimate was \$15,800,000 and the final outlay \$26,500,000, or 67.8 per cent increase. Another project, the Municipal Hall of Records, exceeded the intended cost of \$2,500,000 by 113.8 per cent. While these

may be extreme cases they are in a lesser degree repeated in nearly every city.

Uncontrolled estimates lead inevitably to extravagance and waste and sometimes to bribery and theft. In the estimation of the New York Bureau they permit

(1) Graft and dishonesty. Contractors are inclined to put in low bids and trust to "pull" to get additional appropriations from which large profits are derived.

(2) The city enters into contracts which it ought not to enter and which the taxpayers would not sanction if the ultimate cost instead of the original "guess estimate" were known.

(3) Materials which the city must pay for are wasted with impunity because contractors and city employees know that additional money can be easily obtained.

For eliminating the evils of excessive estimates the Bureau recommends seven precautions based largely upon better business methods:

1—Eliminate under-statement of estimates in order to obtain original authorization in commencing work.

2—Secure thorough investigation of proposed public improvements on the part of the authorizing body.

3—Assure more careful estimates by departmental engineering staffs to guarantee a fair deal both for the city and the contractors, involving an accurate description of character and quantity of work required and of physical conditions affecting it.

4—Eliminate unbalanced bids by extending as far as practicable the method of contracting for work on the basis of unit percentage bidding, so that the city may obtain the benefit of current market rates and pay only for work actually required.

5—Assure competition of representative architects and engineers for important public buildings and other works.

6—Require the petitioning commissioner and the board of estimate to adopt the practice of

publishing an accurate itemized original estimate of cost, and as authorizations are made for all or any part of the work, to state the reasons for any variation from or additions to the original estimate.

7—Extend wherever practicable the limitation of "extras" to a reasonable percentage of the total contract.

SCHOOL BOARD NEWS.

The Milwaukee, Wis., board of school directors has chosen Mr. G. W. Augustyn, one of its oldest members, as president for the year 1913-14.

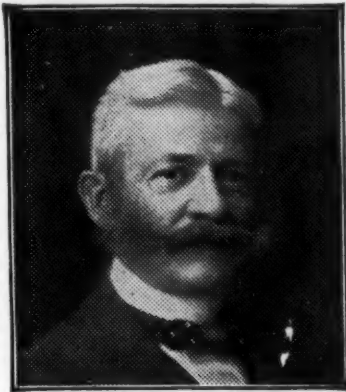
The Detroit, Mich., board of education has elected Dr. Albert McMichael as president to succeed H. C. Goldberg. Dr. McMichael is known to be a progressive who has not taken sides in the factional quarrels which have disrupted the board for some years. His election is generally accepted to foreshadow a united movement for a progressive administration of the school system.

River Forest, Ill. The school board has authorized a series of motion-picture exhibitions in the central school for the benefit of the community at large. It is proposed that the pictures shown shall be largely educational so as to combine instruction of value with the entertainment offered.

The Cincinnati board of education is fighting the Jung "small school board" act by which its membership is to be reduced to seven, six or five members. The board is at present composed of seventeen members and is seeking a decision on the new law on the ground of unconstitutionality.

A considerable number of school districts in the state of Iowa are finding difficulty in retaining the present school treasurers and in finding men willing to accept the office.

Formerly the treasurers drew salaries ranging from \$25 to \$150 per year and were permitted to deposit the school funds in their own private bank accounts. These perquisites have been removed by a new state law which requires that all school funds shall be deposited in some bank in the state and that at least 90 per cent of the



HIGHEST HONORS TO THE Holden Book Covers

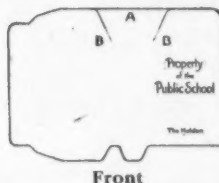
In Competitive Tests for Wearing Qualities, Sanitary Qualities, Ease of Adjustment and Ability to Produce
Economy in the Schoolroom

THE HOLDEN UNFINISHED LEATHERETTE COVERS

Waterproof -- Pure Fibres -- Germproof

Guaranteed for a Full School Year

No Knives or Scissors
Required to Put
on Any Holden Cover



Front



Reverse

No Loss of the Teachers' or
Pupils' Time
No Torn or Uneven Places for
Pupils to Insert Lead Pencils

"UNFINISHED LEATHERETTE"

\$13.50 per 1,000

"2nd QUALITY"

\$10.00 per 1,000

"COMMERCIAL"

\$8.50 per 1,000

Get the Best — The Most for Your Money — The Cheapest in the Long Run

ORDER EARLY!

PROTECT THE LARGE SUMS INVESTED IN TEXT BOOKS

The Holden Patent Book Cover Company

MILES C. HOLDEN, PRES'T AND TREAS.
SPRINGFIELD, MASSACHUSETTS

average daily balances shall draw interest at 2 per cent.

The interest so derived shall be applied to the contingent fund. The new law is generally considered a temporary expedient which foreshadows the entire wiping out of the office of the school treasurer.

A member of the school board of Minneapolis, Minn., has recently condemned the practice of using piano and picture fund money for purchases from dealers who are members of the school board. The funds are made up of collections from the pupils. It was charged that principals order from the representatives on the board and that the principals in turn expect favors for the services rendered.

The school board of Cleveland, O., has restricted school board employees to school work only. They may be allowed to hold outside jobs only upon permission of the school director.

Public schools closed in New Orleans Friday June 13, showing an enrollment at the time of closing of 43,673. Of this enrollment the average present during the term was 31,504 and the average roll 36,444. There were 713 pupils who completed the elementary course, 241 the high school course and 121 the normal course. Certificates from the commercial department of the high schools were presented to 78 girls. The enrollment was 1,588 ahead of last year. Adding to the enrollment of the day schools that of the evening schools, the grand total is brought to 48,409 an increase of 1,805 over last year.

In the line of the tendency towards more simple graduations the New Orleans Board of Education was recently petitioned by the President's Co-operative Club of the schools to adopt a rule to prohibit the use of carriages and the presenting of flowers at graduations. The Board declared it was not within its power to adopt such a rule but directed the superintendents to convey to the teachers that it was the desire of the Board to discourage all extravagance at graduations in which the poor pupils might be embarrassed and outshone by their richer classmates.

San Francisco, Cal. The board of education has entered a strong protest against the withdrawal of the truant officers detailed for service

by the board of education. The officers are city employees, but undertake the truancy work in addition to their regular patrol duties. The board declares the work of these officers is necessary and highly important.

Minneapolis, Minn. A recent recommendation of the finance committee of the school board prohibiting members of the board from selling anything to the schools has been interpreted by the city attorney as a strained construction of the rule to say that purchases made by members from funds collected for special purposes are illegal.

The schools follow a practice of collecting funds twice a year and this money is spent by each school building in the purchase of pictures or pianos. The present rule was intended to cut off the sale of pictures to school buildings.

The attorney-general has declared that the rule prohibiting members and employees of the city body from being interested in contracts made with such body, does not apply to purchases made by individual schools with money which does not belong to the city.

Kenosha, Wis. The board of education has passed a resolution endorsing the movement for recreational activities and has asked the city council to submit the question of buying and maintaining playgrounds to the people. It is expected that a two-tenths mill tax will be levied each year for the support of the playgrounds. The handling of funds will be under the control of the board of education who shall be held responsible for the success of the idea.

Gary, Ind. The school board has begun the reduction of prices in the school lunchroom, to take effect in September. Regular restaurant prices have prevailed during the past and the present action is intended as a step toward selling at cost to all students.

As another improvement, the board has decreed that the surplus from lunchroom sales shall be devoted to the purchase of equipment for cooking departments of other schools. Two additional cafes are to be established in the Emerson and Froebel schools, the preparation of the food to be in charge of the cooking departments.

The New Orleans Board of Education is considering a plan to give the superintendent more

authority in employing or dismissing teachers and also in the fixing of salaries. President Wexler has declared that the superintendent should have authority to promote or demote teachers at his discretion, and where a teacher is found not fitted for the position occupied that the superintendent be permitted to demote or dismiss the teacher. Also, that there be more flexibility in fixing salaries so that certain teachers could have their salaries advanced or reduced when deemed necessary, within certain fixed limits. In other words to install the merit system more generally in the employing of teachers. Mr. Wexler declared that he believed it would tend to an improvement in the standard of teachers.

The school board of New Bedford, Mass., has taken over the control of the high school lunches and has advertised for bids on supplying material for the same. The school is to furnish the dishes and the right is reserved of accepting or rejecting the menus after the bidders have announced what they propose to furnish. The lunches were formerly under the control of the Industrial School authorities.

The Boston school committee has voted to restrict admission to evening center clubs to persons over fourteen years of age and who are not attending the day schools. Other persons who wish to avail themselves of the same may be admitted upon the written permission of the directors.

The Pittsburgh school board has recently ruled that janitors shall not receive remuneration from organizations or individuals who may use the schoolhouses. Such fees as may be desirable for opening buildings, attendance and cleaning will be paid by the board.

The board of education of Niagara Falls, N. Y., in advertising for coal bids, has adopted the same specifications as used last year, when a good deal of trouble arose over the contract. Interests which were not satisfied with the placing of the contract at that time brought an injunction against the board, but the latter was sustained by a court decision. It is claimed that the taxpayers were saved about \$1,400 on their coal expenditure for school purposes, while the general result was a saving of about \$80,000 on the coal used in the city during the winter.

THE American Homeopathic, Ophthalmological and Laryngological Society in session at the Blackstone Hotel, July 3, 1913, went on record favoring more blackboard work for pupils in schools and less textbook work.

"Under the present method of study pupils are universally growing more and more near-sighted year after year," was the warning issued to American teachers and parents.

This has been the consensus of opinion for years gone by. The warning has come from several sources. The solution is more blackboard work for pupils and less eye strain and concentration on textbooks and close-range work.

"Blackboard work is the solution,"
said the Chicago convention.

The only material which offers a blackboard surface of correct quality is slate. Slate is never glossy, does not wear shiny, does not crack or peel, has the ideal soft, gray surface, is restful to the eye, takes the slightest chalk mark, etc., etc.

The Eighteen (18) facts on the page opposite are worthy of note.

Therefore, specify Slate: always.

18 Facts About Slate Blackboards

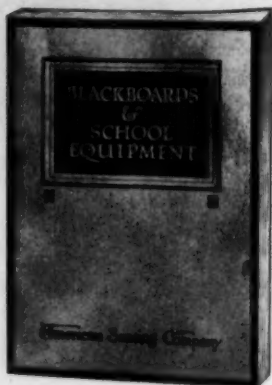
- 1 Simple to install.
- 2 Cheap in price.
- 3 No repair bills.
- 4 Absolutely non-absorbent.
- 5 Do not warp.
- 6 Do not discolor.
- 7 Most hygienic.
- 8 Easily washed.
- 9 Wear for years.
- 11 No uneven surfaces.
- 10 No scaling or peeling.
- 12 Easy on teacher.
- 13 No resurfacing.
- 14 No janitor complaints.
- 15 No glossy surfaces.
- 16 No dust pockets.
- 17 Eye strain eliminated.
- 18 Best chalk marking surface.

WRITE ALL OF THE FOLLOWING QUARRIES TODAY
FOR FULL INFORMATION

Albion Bangor Slate Co., Wind Gap, Pa.	Lehigh Struc. Slate Mfg. Co., Bangor, Pa.
Alpha Slate Company, Bangor, Pa.	North Bangor Slate Co., Bangor, Pa.
Crown Slate Company, Pen Argyl, Pa.	Parsons Bros. Slate Co., Pen Argyl, Pa.
Diamond Slate Company, Pen Argyl, Pa.	Penna. Blackboard Co., Slatington, Pa.
Excelsior Slate Company, Pen Argyl, Pa.	Phoenix Slate Company, Wind Gap, Pa.
Granville Hahn, Walnutport, Pa.	Stephens-Jackson Co., Pen Argyl, Pa.
Hamman Structural Slate Co., Bangor, Pa.	M. L. Tinsman & Co., Pen Argyl, Pa.
William Harding & Co., Pen Argyl, Pa.	J. F. Unger Slate Co., Slatington, Pa.
E. J. Johnson, 38 Park Row, New York City	Thomas Zellner, Slatington, Pa.

ANNOUNCEMENT

THE American Seating Company present their new general Catalog No. A38 for the information and reference of every Superintendent and school official.



Our New 120 Page Catalog

is the most complete directory of School Room Equipment ever issued. Our maps are revised up-to-date and all stock new. Lowest prices and best service guaranteed.

Write for Catalog No. A38 and the
"School Equipment Review"

American Seating Company

218 So. Wabash Ave., Chicago

New York

Boston

Philadelphia

Pittsburgh

EVANSTON, ILL., SCHOOLS



EVANSTON, ILL., GRADE SCHOOL

Are Equipped with the

Johnson System Temperature Regulation Johnson Service Company

Main Office and Factory:

MILWAUKEE,

WISCONSIN

BRANCHES

Boston, Mass. 35 Hartford St.
Buffalo, N. Y. 11 Erie Co. Bk. Bldg.
Chicago, Ill. 177 North Dearborn St.
Cincinnati, Ohio. 68 Perin Bldg.
Cleveland, O. 719 St. Claire Av., N. E.
Denver, Colo. 229 Temple Ct. Bldg.
Detroit, Mich. 20 East Woodbridge St.
Indianapolis, Ind. 605 Majestic Bldg.
Kansas City, Mo. 313 East 10th St.
Minneapolis, Minn. 525 6th Ave. S.
New York, N. Y. 123 East 27th St.
Philadelphia, Pa. 1520 Sansom St.

BRANCHES

Pittsburg, Pa. 114 Seventh St.
Portland, Ore. 629 Lumberman Bldg.
San Francisco, Cal. 243 Monahan Bldg.
Seattle, Wash. 4076 Arcade Bldg.
St. Louis, Mo. 106 N. 10th St.
Dallas, Texas. 3105 McKinney Ave.
Omaha, Neb. 318 Flatiron Bldg.
Toronto, Ont. 118 Adelaide St. W.
Winnipeg, Man. 259 Stanley St.
Vancouver B. C.
Montreal Que.

VOCATIONAL EDUCATION IN MASSACHUSETTS.

Problem Discussed by Commissioner Snedden.

That the future progress of vocational education in Massachusetts depends upon improved methods of instruction, closer contact with the industries and largely increased numbers of children to be reached by the schools was the substance of an address delivered by Commissioner David Snedden at a recent conference of vocational teachers.

During the last five years substantial progress has been made in the development of industrial and other forms of vocational education in Massachusetts according to Dr. Snedden.

The reports of the board of education show that as regards numbers of schools established, pupils in training, varieties of vocations trained for, money expended, and methods of instruction followed, very commendable progress has been made by a considerable number of towns and cities.

"Even yet, the great task is only begun. In scores of towns and cities," says Mr. Snedden, "there are yet no sufficient opportunities for vocational education. In many towns, school superintendents and school committees are afflicted with inertia, lack of insight, or fear of the taxpayer, and there is no one with sufficient enterprise to break ground.

"For some of the industries, no satisfactory vocational instruction has been devised. In some cases, at least, it is not certain that employers have either interest or faith in vocational education.

"Many of the schools and classes already established must yet be regarded as going through experimental stages of development. Each school differs, and should differ, from each other. Each vocational department must continue in a measure to pioneer its own way. There are not many traditions in vocational education as yet.

"But, to a person accustomed to the difficulties of setting in motion new social and public

enterprises, there is ample ground for courage and optimism in the present situation in Massachusetts. We are giving, perhaps, less attention to propaganda, but far more to the working out of practicable measures than was the case two or three years ago. Public interest and response are steadily increasing. The doubting Thomases have largely gone into retirement. Our vocational school teachers are working harder and more confidently than ever before. The co-operation of the state is being made more serviceable. Our purposes are being more clearly defined and our methods are being improved correspondingly.

"But we must make no less progress during the next five years than during the last five. Our schools must reach greater numbers. The interest and co-operation of employers, employees, parents, school authorities and citizens in general must be still further increased. Programs of vocational education suited to scores of recognized vocations not now touched must be devised. Agencies for the systematic training of vocational school teachers must be organized. Manuals and textbooks for the teachers must be written.

"What are the possible lines of progress in the departments already established? We must freely admit that we have not exhausted the possibilities of vocational education. We have much to do yet in improving our methods and in making more intimate and effective our contact with the industries for which, in fact, we give vocational training."

Speaking of the development of the full-time day vocational schools suggested the following lines of progress:

The full time or all day department required by law to receive pupils who have completed the requirements of compulsory attendance on the regular public schools, must so define its aims and standards that it can soon determine which of the pupils admitted will be disposed and able to profit from its work. To be worth the money invested in them, vocational depart-

ments must keep every pupil working at a good rate and to a profitable purpose. No vocational department can permit the retention of idlers, triflers or incompetents. The pupil who, after reasonable trial shows no serious disposition or ability, should at least be compelled to take a vacation until he finds himself.

We must all deplore the influence on the day vocational school of the regular public school as regards the length of school year, school week and school day. I cannot see what a vocational department has to do with a forty week year, or a five or six hour day. I do not believe we shall merit the confidence of the public until we stand strongly for a forty-eight hour week and a fifty week year in our day vocational schools.

In the organization of day vocational schools we must stand for greater independence and autonomy of departments. In the last analysis, there should be no more connection between a department of plumbing and a department of machine shop work than between a law school and a medical college in a university. Each should be under the general administrative direction of the director or principal, but each should also have a responsible head, a master in the calling with which the department concerns itself, and a person capable of framing courses of instruction and of keeping in close touch with his advisory committee.

The all day school must make more of shop practice and productive work. It should be first of all a productive shop. There is a great temptation to play at shop work in vocational schools. We must all admit and recognize the almost endless difficulties standing in the way of satisfactory education through shop practice, but we must fight our way forward, if, as I believe we agree, we are convinced that the principle is sound. I hope we shall eventually be able to allow the pupil to share in the commercial proceeds of his shop work.

We talk much about fundamentals and essentials in vocational training. In the day vocational school it is my firm conviction that the



Nos. 130 and 130-A "Oliver" Single and Double Down Draft Forges

LISTEN:—"OLIVER" Forges are installed in 45 important Educational Institutions. The most popular Forge on the market today. Built for practical purposes, by experts.

Write for particulars to

OLIVER MACHINERY CO.

New York
Chicago

Grand Rapids, Mich.

St. Louis
Los Angeles

"The Engineering Features"

connected with the "layout" for a forge equipment should be entrusted only to an expert along this line.

The arrangement of underground conduits for air pressure and carrying away the gases —

The selection of pressure blower and exhaust fan —

The location of the motor, and whether to have them direct connected or belt driven —

Are all of such vital importance and so necessary to successful operation, that the Oliver Machinery Co. makes a specialty of the above. Our engineering talent along these lines is second to none. We solicit the opportunity to make drawings to fit any room you now have or may want —

To select the blowers, fans, motors, etc., and tell how much it would cost.



practical productive work, or rather the experience derived from doing such work constitutes the fundamentals and essentials, and that all other studies should be based upon and branch from this experience. Hence, at the outset of the vocational course, the getting of practical experience should occupy from 70 to 80 per cent of the pupil's time. Related technical studies in mathematics, drawing, sciences, English and the rest should be brought in when the practical experience already obtained makes it feasible and profitable. Too much of our teaching of these subjects in vocational schools is still bookish, abstract and vocationally unserviceable. Let us not follow the general high school in teaching these as "cold storage" subjects. As the pupil acquires breadth and extent of experience he will be more and more able to profit from abstract studies and those more gifted persons who are to make foremen and overseers will be capable of extended training in technical subjects. In any given vocation our progress of training must be designed to give something to all who show that they can profit from it. We have no business to place our training at the outset on such an aristocratic level that only prospective foremen can benefit from it; but in the upper reaches of our courses must be ample opportunities for those with the energy, ability and persistence to become officers in the industrial army.

We must do a great deal more in getting our vocational work organized on the "project" basis, if it is to be efficient. The "project" is simply a complete unit of practical work together with the related drawing, science, mathematics, etc., that can profitably be taught in connection with it. The "project" is the most satisfactory pedagogical unit of organization for the vocational school because it insures practical experience and an intelligent understanding of the same.

Our day departments of vocational training are going to fail unless they can make effective use of advisory committees, especially if the

school is under the school committee. Each distinct department must have its own advisory committee, composed principally of employers and employees of the industry represented by that department. I think the state should soon require evidence of the active participation of the advisory committee in a consultative capacity in each department as a condition of approval. The head of the department and the director of the school must be the active factors in bringing this co-operation about.

We are, as I said above, only at the beginning of vocational education. As the community grows richer and more aware of its needs, it is destined to go into this new education on a larger basis than ever. Let us take counsel of each other. Let us develop a sane practical philosophy of vocational education. Let us be

sure we keep our feet on the solid ground of reality and close to economic conditions as they are.

DELAWARE'S NEW COMMISSIONER.

Dr. Chas. A. Wagner, the new State Commissioner of Education for Delaware is a Pennsylvanian by birth and education. He began his career as a teacher in a rural school of the state and was for some years engaged in conducting a general store in a small village. His love for education, however, gave him no rest and in 1895 he returned to teaching and in 1896 entered the West Chester State Normal school. Here he completed the work of the ordinary normal course in a year's time and spent about half a year in post-graduate work. In 1897 he became Superintendent of Cheltenham Township, a rich suburban residence district in Berks County. Here he succeeded in building up the schools in opposition to a powerful faction, secured the construction of a new high school and brought the schools to a high state of efficiency.

In 1906 he was given the degree of Bachelor of Arts by Ursinus College and resigned his position at Cheltenham to become instructor of pedagogy at the West Chester Normal School. In 1912 he received the degree of Doctor of Philosophy at the University of Pennsylvania for his advanced work in education.

Dr. Wagner is one of those earnest schoolmen who believe that their duty in the classroom and office is only half of their work as educators. It has been Mr. Wagner's hobby to organize teachers and school directors for closer co-operation and to awaken and unite a community sentiment for the progressive betterment of the schools.

It was this organizing ability which led last month to his election as Commissioner of Education for Delaware. The position which he has just entered upon is a new one created by the last State Legislature as part of a general movement to reorganize the Delaware schools.

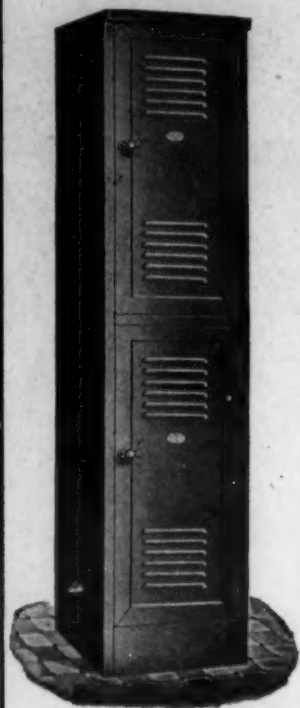


DR. CHARLES A. WAGNER
State Commissioner of Education for Delaware.

WHEN YOU SPECIFY
Steel Clothes Lockers

for your school, club, or for any other use, specify

HESS, STYLE B



There are many reasons why this locker is most suitable for all clothes locker purposes. We can't say much here, and what we might say, in print, wouldn't convince you to any great extent.

But We Will Show You

If you are buying or specifying lockers we will deliver, RIGHT IN YOUR OFFICE, free of all expense to you, charges prepaid, a finished sample showing the construction and finish of our lockers. You can examine it carefully and return at our expense, the carrying charges to be paid at this end. Then you'll know what GOOD lockers are like. You can see and test our FRAMELESS CONSTRUCTION, NEW WELDED, TUBULAR, PANEL DOOR, without a rivet or bolt showing—the NEW STEEL PIVOT HINGES and REINFORCED CORNERS—YALE LOCKS, BEAUTIFUL BAKED ENAMEL FINISH. In fact, you'll see a high class locker at a low class price, which will surprise and delight you. SAY YES, we'll do the rest.

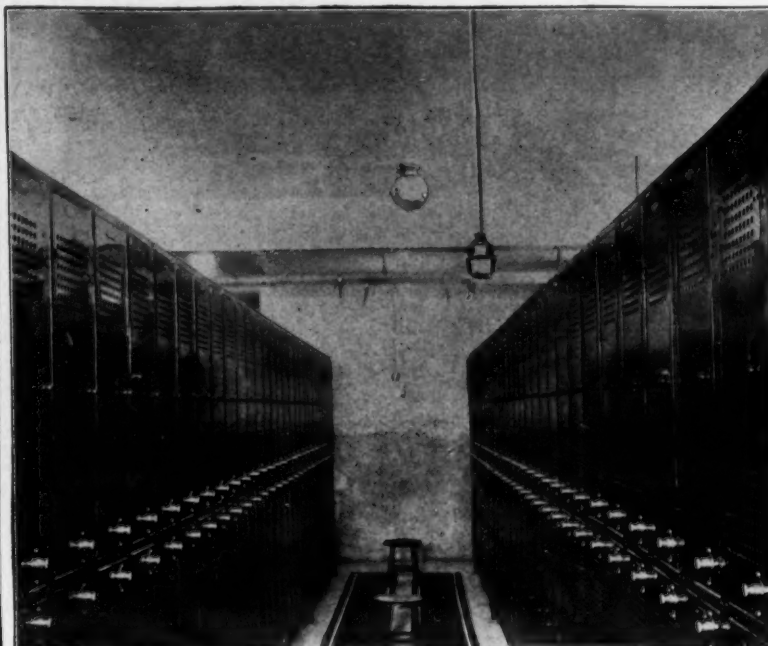
FREE BOOKLETS

Hess Warming & Ventilating Co.

Milwaukee Office:
527 CASWELL BLOCK

1222 Tacoma Building
CHICAGO

Here is one of our TYPICAL



double-tier high school installations.

When we say typical we mean the quality of all is typical.

DURAND STEEL LOCKERS have always been noted for quality.

Ask the man who uses DURAND LOCKERS.

Write today for Catalog and Prices.

Durand Steel Locker Company

775 American Trust Bldg.,
Chicago, Ill.

625 Vanderbilt Bldg.,
New York, N. Y.



AMONG SUPERINTENDENTS.

Supt. J. J. Keyes of Nashville, Tenn., has been re-elected by unanimous vote of the board of education.

Supt. E. C. Warriner of Saginaw, Mich., has resigned to accept the principalship of the training department of the Mt. Pleasant Normal School. The position carries a salary of \$3,000 per year.

Mr. R. G. Jones, who has supervised the schools of Kewanee, Ill., for six years past, has been elected superintendent at Rockford, Ill., to succeed the late P. R. Walker. Mr. Jones is a graduate of Teachers' College and has done post-graduate work in school administration. He has made a splendid record at Kewanee, introducing new teaching methods in the grades and establishing vocational education in the high school. He is considered one of the strongest of the young men in the state. His salary at Rockford will be \$3,200.

Dr. E. R. Snyder, formerly of Greeley, Colo., has been appointed superintendent of the schools at Santa Barbara, Cal. Dr. Snyder was previous to his recent appointment vice president of the State Normal at Fresno, Cal., and superintendent of the Fresno Schools.

G. P. Randle, for eleven years superintendent of the Mattoon, Ill., public schools, has been elected to the superintendency of the public schools at Danville, Ill.

Supt. W. F. Axtell for twenty years head of the Washington, Ind., schools has resigned.

Wardner, Ida. James H. Adams has been elected superintendent of the Wardner-Kellogg public schools. Mr. Adams was for three years superintendent at Ottawa, Kans., afterward going to Chanute where he remained three years. For the past five years he had been at Aspen, Colo.

Framingham, Mass. E. W. Fellows has been elected superintendent of schools at a salary of \$2,300 per year. He succeeds S. F. Blodgett who held the office seventeen years.

Mr. C. E. Humphrey has been elected at Denison, Ia., to succeed E. W. Fellows who recently resigned.

Mr. P. P. Colgrove has been elected superintendent of schools at Virginia, Minn., to succeed Mr. Lafayette Bliss. Mr. Colgrove has been lately connected with St. Cloud state normal school and is an experienced school supervisor.

La Crosse, Wis. Supt. L. P. Benezet has been re-elected for his fourth term.

Mr. C. D. Loose has been elected head of the Washington, Ia., schools to succeed A. D. Fuller, Jr.

Mr. Harry Howell of Raleigh has been elected superintendent of the Asheville, N. C., city schools to succeed Mr. R. J. Tighe, who resigned a short time ago. Mr. Howell is a native of Goldsboro and was in school work at Washington, N. C., from 1895 to 1909. He went to High Point in 1909 to assume the duties of superintendent of the city schools of that city, resigning in 1911 to travel for Silver, Burdett & Co., New York.

After a stormy session of the East Baton Rouge School Board July 1, C. M. Hughes was elected to the position of superintendent, succeeding Superintendent Hendon. Mr. Hughes is forty years of age and up to the time of his election held the position of principal of the city schools. In turn the retiring superintendent Mr. Hendon was elected to the position vacated by Mr. Hughes.

New Bedford, Mass. Supt. Allen P. Keith has been re-elected at a salary of \$4,000 per year.

Joliet, Ill. The office of assistant superintendent of schools has been created by the appointment of Mrs. Ella Hubbard. The office is practically that of a dean of women such as co-educational colleges have and has been created following the board's recognition of the need of such an office. The salary attached will be \$1,200.

Lorain, O. Supt. A. C. Eldredge has been re-appointed for a three-year term. Mr. Eldredge was granted a salary of \$2,800 the ensuing year and \$3,000 for the next two years.

Clinton, Mass. Supt. C. L. Hunt has resigned after a service of twenty-four years in the public schools. Mr. Frederick E. Clerk was appointed to the position at a salary of \$2,000.

Supt. Frank J. Peaslee of Lynn, Mass., has been re-elected by the school committee.

James A. Barr, formerly superintendent of schools at Berkeley, Cal., has been appointed chief of the Department of Education of the Panama-Pacific International Exposition, to be held in San Francisco in 1915. Education as expressed both through exhibits and through Congresses and meetings of scientific and learned societies will be the keynote of the Exposition.

Mr. George N. Otwell, commissioner of schools for Berrien County, Mich., has been named assistant superintendent of public instruction for Michigan by Supt. L. L. Wright.

Mr. W. B. Bourne of Brownsville has succeeded Mr. P. L. Harvard as state high school inspector for Tennessee.

Elwin A. Ladd has been unanimously chosen superintendent of the Batavia, N. Y. public schools to succeed John Kennedy, who recently resigned after a service of many years. The salary is \$2,000 a year. Mr. Ladd has been principal of the Batavia high school since 1902. He is a graduate of Cornell, class of 1895. Before coming to Batavia he was for four years principal of the Bergen high school, in the same county.

Supt. Walter E. Miller, of Knoxville, Tenn., on July 15, entered upon his second term of two years. In April he was unanimously re-elected at an annual salary of \$2,500.

Mr. W. A. Brandenburg of Oklahoma City, has been elected president of the Kansas Manual Training Normal School at Pittsburg, Kans. Mr. Brandenburg has made a remarkable record in Oklahoma City in organizing manual training in the Oklahoma City schools. He is an Iowan by birth, a graduate of Drake and the Iowa State University, and was for some time superintendent at Mason City. The presidency of the Manual Training Normal offers opportunities for wide educational usefulness,—particularly since it is to be the only institution in Kansas where teachers of art, domestic science and manual training will be trained.

ATTRACTIVE EQUIPMENT--- That's What YOU Want!



No. 60 Student's Domestic Science Table

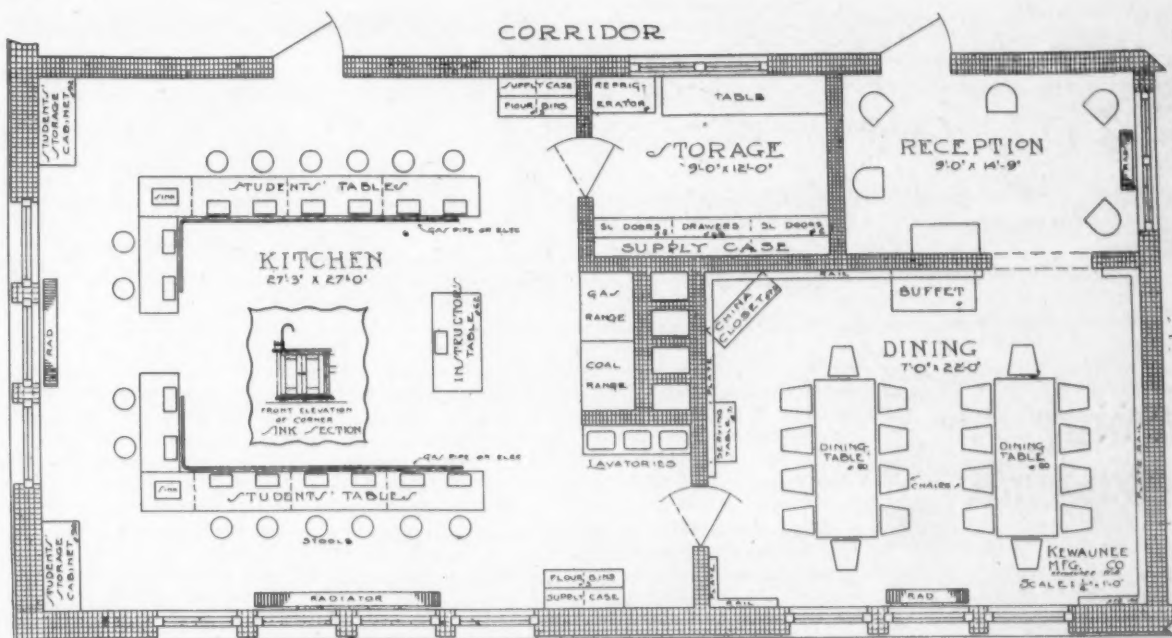
Built of solid selected OAK, maple top, 30 inches wide, 60 inches long, and 32 inches high. Fitted with gas or electric hot plates, and piping or wiring, complete. Masterkeyed locks. Finished natural.



No. 62 Domestic Science Teacher's Table

Is fitted either with gas or electric stove. Has two large drawers and is built of solid selected OAK throughout, including the top.

The accompanying cut gives you an idea of what constitutes an ideal Domestic Science Laboratory. If your rooms differ greatly, let us make you special floor plans.

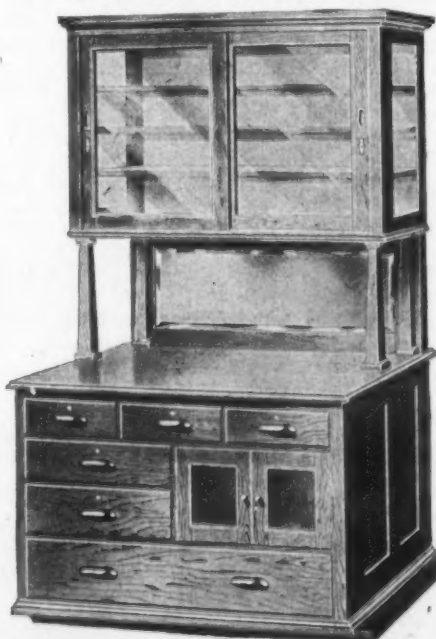


REMEMBER THIS!

All of our Domestic Science Furniture is built of **SOLID WISCONSIN OAK!** This beautifully grained wood is becoming scarce, and is constantly advancing in price. It easily ranks next to mahogany.

No. 65 China Closet and Buffet

has very spacious drawers and cupboards, the lower section being 24 inches deep. The upper section is 14 inches deep and contains a highly polished French plate mirror.



No. 71 Serving Table

Located in the Dining Room.



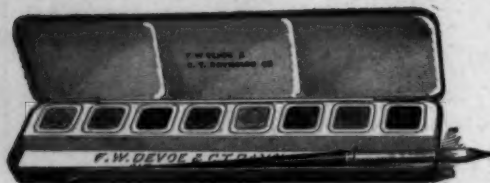
No. 68 Supply Case

is precisely as shown below. The lower section can be furnished with sliding doors and shelves, or with two large tilting flour bins.

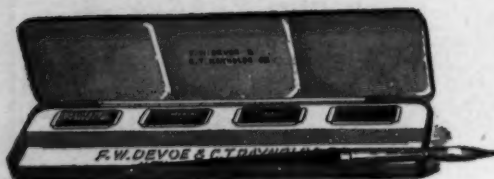


**Kewaunee
Manufacturing Co.**
Kewaunee, Wis.

*"The Only Exclusive Laboratory
Furniture Factory in
the United States"*



Box 118



Box 122

A foreword for fall; in making your plans for the study of color values, include Devoe School Water Colors.

They are more than a box of paints; they're true colors, uniform in quality and texture. You'll find them in use in most of the good schools in the country. Thirty styles of boxes.

Devoe Peacock Dyes are so easy and simple to use that a child can stencil with them. Ask for pamphlet and color card.

Our attractive 1913 catalogue of school and other art supplies free on request. Write Dept. 5.

Special prices to schools and teachers.

Devoe

14-16 West Lake Street
Chicago

Fulton and William Streets
New York

1312-1314 Grand Avenue
Kansas City



Supt. Ben Blewett of St. Louis, Mo., has appointed a committee to investigate thoroughly the courses taught in the schools with a view to modernizing them. The work is to be begun next fall and will be taken up systematically by committees of thirteen members, each engaged in the study of a subject.

The activities of the Iowa state department of public instruction are being considerably enlarged under the provisions of a law passed by the last legislature. This law placed in the hands of the state superintendent the supervision of rural, graded and high schools in the distribution of state aid for the consolidation of school districts and for the teaching of such special subjects as manual training, domestic science, agriculture, etc.

In putting the law into effect, Supt. A. M. Deyoe has selected three assistants, or inspectors. Mr. A. C. Fuller, Jr., of Washington will act as inspector of high and graded schools; Mr. J. A. Woodruff will undertake the supervision of consolidated and rural schools and Mr. O. E. French will become chief clerk of the department.

Mr. Fuller has been superintendent in Washington for several years and has done advanced work in education at the Iowa State University and the University of Chicago. He is thoroughly familiar with conditions in Iowa and is considered an energetic, progressive schoolman.

Mr. Woodruff is a man of considerable experience in rural school consolidation. Mr. French has served twenty-three years as principal and superintendent of the Creston schools and has been connected with the state board of examiners for some time.

The Minnesota educational commission, appointed recently by Governor Eberhardt, has organized for its work. The commission consists

of four business men and three educators, and is headed by Mr. W. D. Willard, a prominent banker of Mankato. The chairman of the executive committee is Hon. C. G. Schulz, state superintendent of education, Mr. R. A. Kent, for three years superintendent of schools at Winona, is secretary.

The commission is undertaking a survey of the Minnesota schools not with a view of rabid criticism but to mold the entire system into a closer unit, to articulate more closely each part of the system, to study the relations of the higher institutions like the university and the normal schools to the common schools. A careful inquiry is being made of the cost of education of the relative burdens borne by the state and by the local communities. The courses of study and the general content of school work, the relations of industrial training and other school work, are being investigated. An effort will be made also to learn the extent of the failure of the schools to meet the demands for special training, to inquire into the means and adequacy of the training of teachers, salaries, tenure of office, etc. The commission will seek this information not only locally but also in other states where marked progress has been made in school administration.

Comparative figures compiled by Supt. John Davison of Lima, O., indicate that of all the large cities in the state of Ohio, Toledo has the highest cost of instruction. For the year ending August 31, 1912, the people of Toledo paid \$63.02, per pupil enrolled, for the conduct of the schools. Cleveland is second with a per pupil cost of \$57.93; Youngstown third with an expenditure of \$54.46. Lima is lowest among cities exceeding 30,000 population. Its annual cost is \$30.15 while its rival, Hamilton, spends \$40.48.

State Superintendent of Education Harris, of Louisiana has recently sent out a circular addressed to superintendents and parish school directors proposing a change in the public school system of the state that is attracting wide attention. Mr. Harris suggests that a million dollars a year, now wasted, might be saved if the school term were reduced from nine to seven months. He declares that in the rural

BRADLEY'S STANDARD WATER COLORS

Have been adopted by more schools than all other kinds combined. Wherever the best in art work is attempted and accomplished Bradley Colors are used. Manufactured expressly for educational purposes they meet perfectly every requirement of that exacting field.

The Bradley Art Catalogue illustrates and describes art materials for every need. Free for the asking—please ask.



Bradley "B-1" Box—eight pans semi-moist colors; No. 7 brush. The biggest selling box on the market.

MILTON BRADLEY COMPANY

SPRINGFIELD, MASS.

Boston New York Philadelphia Atlanta San Francisco
Chicago: Thos. Charles Co. Kansas City: Hoover Bros.

Bradley

districts, in the fall months many children drop out of school or fail to enter because they are needed at home to assist in harvesting crops, and again, in the spring thousands are taken from school to assist in planting. Mr. Harris believes that the boys should continue to do their farm work, but suggests that if close co-operation is arranged between the school and the field that both can be benefited. He suggests as an ideal plan to keep the schools open all the year round dividing the session into three or four terms with complete units of work in each term. This plan would, however, require larger school expenditures in each parish. As an alternative Mr. Harris suggests the short term plan, that is to have the term run six or seven months, say from August 1 to March 1. He declares that with full attendance during such a term, better results can be accomplished than from the present spasmodic attendance.

Mr. Harris has the idea to put the plan before the educators now so that it can be discussed and if favored submitted to the Legislature for adoption next year.

Wheeling, W. Va. Departmental instruction, recommended by Supt. Hervey B. Work, will be introduced in the upper grades next fall.

Acting upon a suggestion made by Superintendent Gwinn the New Orleans Board of Education is going to establish a department of educational research as part of the department of superintendence. The principal aims of this department for the coming year will be: First—For the Delgado Central Trade School, a vocational survey to obtain data with respect to the trades that should be taught in this school, the character of buildings which should be provided and the kind of curricula adopted. Second—Researches in the public schools. These researches to furnish standards of school efficiency and the extent and cause of retardation and repeating.

To carry out this plan the appropriation of \$1,500 made to carry out a research of exceptional children under a joint agreement with Tulane University will be transferred to the department and the City Council will be asked to make an appropriation of not less than \$2,000 out of the fund bequeathed for the establishment of the Delgado Central Trade School.

Best in 1835



Best in 1913

Made in a modern, clean, sanitary factory at Sandusky, Ohio, along Lake Erie's limpid waters, where the air is pure and the sky is blue.

Waltham Brand Crayons are guaranteed to be made from Chemically Pure, Germproof, Sterilized material, and to be absolutely free from plaster of paris.

Factory
Sandusky, Ohio

The American Crayon Company

Eastern Office and
Warehouse
Waltham, Mass.

It is said that a prominent educator in New Orleans will be tendered the head of the department of educational research.

A report has been made on the investigation recently begun in Grand Rapids, Mich., to determine how many children under fourteen years of age are not in school. Out of 3,009 children who were on last year's census as thirteen and fourteen years of age, there are seventy-two who are not enrolled in the public schools.

Of the total number, 688 have completed the eighth grade and have thus complied with the law. A total of 1,878 are in school attending the lower grades, while 443 are not registered in any school. Forty-eight have secured working permits. Eighteen pupils presented certificates from physicians showing they were detained by illness. Twenty-five claimed illness without any certificates to exhibit for the same. Twenty-seven were supposed to be attending school outside the city and twenty-two were declared sixteen years of age contrary to the census. Forty-five children had left the city and seventeen could not be found.

Of the remainder, seventeen boys are in the reform school, one girl is in the industrial school and four are under the control of the Juvenile Court.

At a recent meeting of the members of the Alpha Delta Phi, a national college sorority, held at Chicago, resolutions were adopted barring from membership students in the high schools and secondary schools who have allied themselves with secret societies. Students who have affiliated themselves with the forbidden societies are cautioned to resign by September 1, 1914, and no member of such an organization will be admitted to the national organization after September 1, 1916. The resolutions termed the high-school societies as "a menace to the best interests of the community and a detriment to the young girl student, which should not be tolerated in any community."

Dudley, Mass. The school board has voted to adopt the tenure of office system for teachers. The system was in use two years ago but was discontinued.

The school committee of West Springfield, Mass., has offered to reimburse teachers desiring to take special courses at the universities

offering such advantages. The expenses connected with the same will be added to the regular salaries which they are to receive next year. The committee has made some restrictions in order to make the work satisfactory. The number of teachers is limited to twelve and the amount of reimbursement must not exceed \$30.

Supt. Homer P. Lewis of Worcester, Mass., has devised a plan for differentiating the courses for the seventh and eighth grades as a substitute for the rigid uniform course.

In the first course special attention will be given to technical grammar as an example of how practical a course children may follow. Business papers and industrial subjects will be considered.

The plan is expected to give the children in the seventh and eighth grades an opportunity to choose early in life their future work. Whether they are able to choose intelligently is a question, but the opportunity is given them.

An investigation of the Wisconsin State Normal Schools by Messrs. Lindholm and Farmer of the Bureau of Municipal Research of New York City shows the wisdom of something more than simply visiting a teacher in order to form a correct estimate of his teaching success. After visiting a few of the classes of Prof. James I. Malott at the River Falls Normal School the inspectors were unfavorably impressed with his teaching. Imagine their surprise when after giving a written test to one of the classes, they received "one of the most remarkable sets of papers" they had seen anywhere. Other tests were given with similar results and Mr. Malott's work was studied from different angles. Before leaving one of the examiners stated "that the actual results showed Mr. Malott to be one of the exceptionally strong teachers in the country."

Minneapolis, Minn. The board of education has given Superintendent Jordan authority to use his discretion in the matter of examinations of teachers who wish to be appointed to the teaching corps. In the past the board reserved this work to itself and teachers were obliged to pass the examination before appointment.

Gary, Ind. Teachers who wish to remain in the employ of the public schools must make their residence in the city hereafter. Formerly

teachers retained their homes in other cities travelling back and forth each day.

Boston, Mass. The board of superintendents of the public schools has this year adopted a modified plan for the certification of candidates for teaching positions. The new plan provides for a "personal interview" of each candidate for a certificate who has not been previously employed in the permanent teaching force. The board has also adopted a plan of visitation of candidates which restricts the visitation to elementary A and elementary B certificate candidates who previously received a sufficiently high scholarship mark to warrant visitation. It is the belief of the board that the names of candidates who have been visited and rated should be listed separately from those not so visited and rated and from those certified on the results of previous examinations. The names of candidates not visited this year are to be merged with lists heretofore existing.

Permission has been granted by the New Orleans Board of Education to school teachers who desire to conduct pay schools during vacation to use the public school buildings without any charge for rent. The Board took the position that pay schools conducted by the teachers during vacation aided those pupils who might be backward to advance in their grades.

A summer high school is being conducted at Nesquehoning, Pa., for students who desire to take additional work. A recent ruling of the Pennsylvania State Board of Education makes it practically impossible for any student to graduate from high school in three years. To make this possible for ambitious students Principal A. E. Wagner has arranged a summer term for the Nesquehoning high school.

The high school at Donora, Pa., has introduced the "long school day." Sessions begin at 8 A. M. and close at 4:30 P. M., with a noon recess of two hours. The purpose of the longer session is to abolish the necessity of home study and to afford the students an opportunity to prepare their daily work under the supervision of the teachers. The results so far appear to be uniformly successful. Teachers, pupils and patrons are satisfied with the arrangement and there is a strong sentiment in favor of the idea.



STYLE A60TF

ELECTRIC SELF-WINDING MASTER and PROGRAM CLOCK for \$100.00

Specifications.

60-beat, self-winding regulator, 12 in. white enameled dial, platinum tipped circuit closers, control for any number of SECONDARY CLOCKS.

Six Program Five Minute Interval Program Machine, with AUTOMATIC CALENDAR SWITCH for silencing bells on any day or night of the week as desired.

Case of golden quartered oak, cabinet finish or finish to match sample as submitted.

Adaptability

For use in any school or college, send for information blank and we will see that it will meet your full requirements.

Terms

Furnished complete, with Samson No. 3 battery for operation, complete instructions for the installation and operation, for \$100.00 f. o. b. factory.

Write for Catalog S on our complete line of
ELECTRIC MASTER, PROGRAM
AND SECONDARY CLOCKS

LANDIS ENGINEERING & MFG. CO.

Successors to FRED FRICK CLOCK CO.
WAYNESBORO, PA.

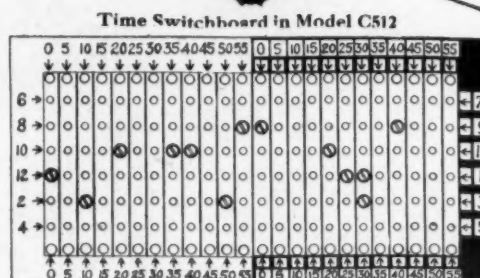


"Readyshift"

An eight-day regulator, 80-beat pendulum with program device and switchboard all contained in neat and substantial cabinet of quarter-sawed oak or mahogany.

Program Clock

Standard models arranged for 2½ and 5 minute intervals and single or multiple circuit signals automatically silenced during any period when not desired. No relay troubles.



Time Switchboard in Model C512

Mounted in lower part of above cabinet. Handy and accessible. The name "Readyshift" just naturally suggests itself when you set or change your program by solid plugs on this solid, plainly marked switchboard.

Write for Booklet P 2

HAHL AUTOMATIC CLOCK CO.

2644-8 N. Maplewood Avenue

CHICAGO, ILL.

Manufacturers of "Hahl Automatic Pneumatic Clock Systems."

SCHOOL LAW

School District Government.

In a prosecution of a school district trustee for misconduct, it was held that his duties as to procuring a schoolhouse site and title thereto, etc., mentioned in the indictment were contemplated by the South Carolina Civil Code of 1912, p. 1761, and that the indictment under the Criminal Code (p. 545) charging that he failed to discharge the duties imposed on him as trustee, sufficiently alleged a violation of law by him, and not simply a failure to perform a duty imposed on him by the board. *State v. Elliott, S. C.*

Under the Kentucky statutes (p. 3223), by which the clerk of the school board of a school being interested in a contract with it forfeits his office and is ineligible to hold office under it, he may be removed, though since elected for a new term after his offense. *McLaughlin v. Shore, Ky.*

Under the Kentucky statutes (p. 3226) authorizing the school board of a city to prescribe the term of office of its clerk, it having adopted rules fixing the term at two years, but providing that for malfeasance in office he may be removed by it, it can remove him, he having violated section 3223, thereby rendering him ineligible. *McLaughlin v. Shore, Ky.*

School District Property.

The clerk of the school board of a city by writing insurance for the board in a company for which he is agent violates the Kentucky Statutes (p. 3223), prohibiting any officer of the board being interested in a contract with it. *McLaughlin v. Shore, Ky.*

Teachers.

Where a school teacher wrote two copies of a contract, signed both, and delivered one to the school directors, but the directors signed only the one kept by the teacher, and the copy delivered to the directors recited a salary of \$6 instead of \$60, there was a sufficient compliance with the law that the directors could not make

any but a written contract to teach. *Marr v. School District No. 27, Cleburne County, Ark.*

Where one of three directors of a school district moves out of the district with intent not to return, he vacates the office, and the remaining directors have power to make a binding contract to teach, although otherwise the contract would not be binding if such director did not have notice of the meeting, where such contract was authorized. *Marr v. School District No. 27, Cleburne County, Ark.*

Where a county school superintendent was alleged to have dictated plaintiff's illegal removal from her position as a school teacher without hearing and to have prejudiced her case, plaintiff was entitled to sue to determine the validity of her discharge. *Caffrey v. Superior Court of King County, Wash.*

Conduct and Discipline of Schools.

Dependent children committed to the care of certain persons pursuant to Juvenile Act of April 23, 1903 (P. L. 274), do not obtain a residence in the school district in which such persons reside, so as to entitle them to the admission to the public schools in such district under the School Code (Act May 18, 1911, P. L. 309). *Black v. Graham, Pa.*

The Kansas general statutes of 1909, (p. 7810 p. 7838), known as the uniformity act, requires the use of the same textbooks in all the schools, in order to lessen the expense while insuring the quality. *State v. Innes, Kans.*

The board of education of a city has no power to adopt other books than those adopted by the state textbook commission, except such books of reference to be used in connection with, but not in place of, the regular textbooks. *State v. Innes, Kans.*

Where it was shown that defendant school committee had adopted and were using costlier readers than those prescribed by the state board of education, as if they have been regularly adopted by such board, an injunction against such practice was improperly denied. *State v. Innes, Kans.*

"Reference books" defined, and held that a first reader cannot be used as a reference book by a child learning to read in another. *State v. Innes, Kans.*

Indiana Adoptions.

The Indiana state board of school-book commissioners has recently adopted books for uniform high school use. The prices of the books adopted by the board average nearly 20 per cent less than the prices that have been charged previously for high-school textbooks in the state.

The following are the books adopted:

Mathematics—Wells & Hart's algebra (Heath); Wentworth & Smith's geometry (Ginn); Modern commercial arithmetic (Lyons-Carnahan).

History—Webster's ancient history (Heath); Harding's mediaeval and modern (Am. Book Co.); James & Sanford's American (Scribner).

Language and Composition—Moody, Lovett & Boynton's English literature and American literature (Scribner); Howe & O'Hair's rhetoric (Longmans-Green); Bennett's prose composition (Allyn-Bacon).

Civics—Garner & Davidson's (Am. Book Co.).

Latin—D'Ooge's Beginner's Latin (Ginn); Walker's Caesar (Scott-Foresman); Johnston & Kingery's Cicero (Scott-Foresman); Knapp's Virgil (Scott-Foresman); Bennett's Latin grammar (Allyn).

German—Vos's Essentials (Holt); Walter & Krausch's German Conversational Methods (Scribner).

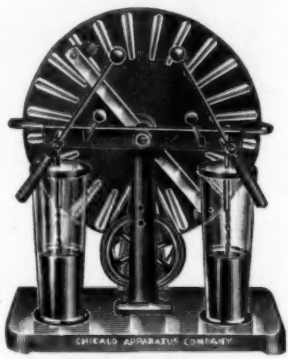
Zoology—Linville & Kelly's (Ginn); Davenport's (Macmillan); Colton's (Heath); Jordan & Kellogg's (Appleton).

Botany—Bergen & Caldwell's (Ginn); Coulter's (Appleton); Coulter's (American); Andrews's (American).

Geography—Dryer's physical (American); Adams' commercial (Appleton).

Chemistry—Bradbury's (Appleton); Brownlee's (Allyn); McPherson & Henderson's (Ginn); Hessler & Smith's (Sanborn).

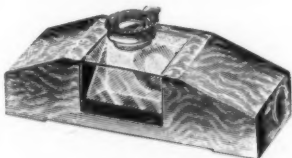
Physics—Black & Davis' (Macmillan); Gorton's (Appleton); Hoadley's (American); Millikan & Gale's (Ginn).



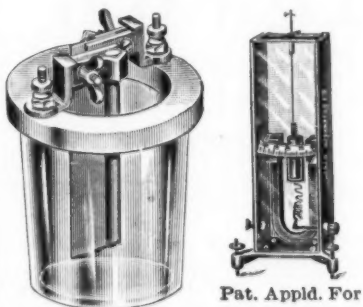
Patents Pending
Electric Machines, Accessories,
etc.



Balances of All Kinds



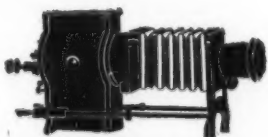
Dissecting Microscopes,
Compound Microscopes, etc.



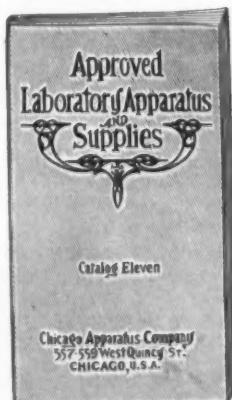
Batteries, Galvanometers, Electrical
Measuring Instruments, etc.



Weights of All Kinds



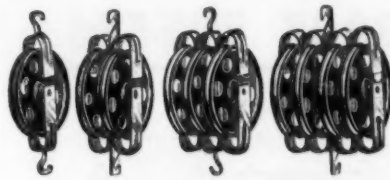
Projection Lanterns for all kinds
of Projection Work



Our New Catalog



Flasks, Beakers, Funnels and
other Glassware



Improved Steel Pulleys
of All Kinds



Air Pumps of All Kinds



Dissecting Sets, Instruments,
Material, etc.



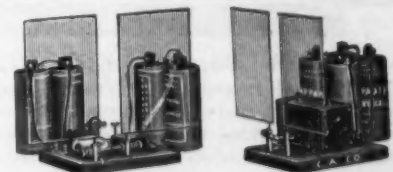
Vernier Calipers, Micrometer Cal-
pers, Meter Sticks, etc.



Spring Balances
of All kinds



Rotators, Whirling
Tables and Access-
ories of All Kinds



Wireless Telegraph Apparatus



Tuning Forks, Sonometers, etc.,
for the Study of Sound



Milk and Cream Testers, Soil Tubes, etc.

Another Theory Exploded

There is a widespread idea that scientific apparatus, to be good, must be expensive. Our quality and prices disprove this.

With our apparatus you can illustrate scientific laws and principles easily, clearly and effectively. Yet it is so low in price that every school can afford to equip their laboratory with it.

It meets the requirements of present day science courses. It has won the approval of thousands of science instructors, school officials and school boards. Over five thousand institutions use it.

In construction it is durable, thus insuring long life. In appearance it is neat and attractive. Installed in your laboratory it is a credit to your institution.

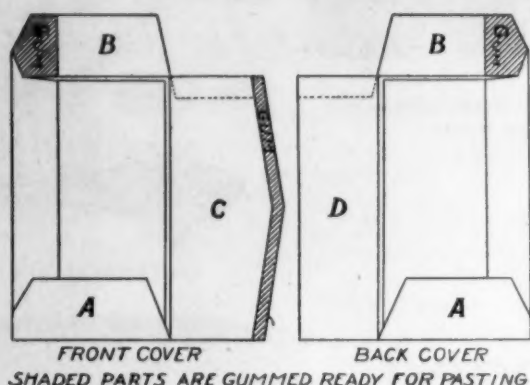
The articles illustrated on this page are but a few of the many listed in our new catalog eleven. Every illustration in this catalog is new, every description true, every price the lowest that we can offer to schools.

To prove to your own satisfaction that good apparatus can be had at reasonable prices send for a free copy of catalog eleven today.

CHICAGO APPARATUS COMPANY
559 West Quincy Street
CHICAGO, ILL.

THE REYNOLDS BOOK COVERS

D
U
R
A
B
L
E



S
A
N
I
T
A
R
Y

Paper Stock. The paper used in these covers is imported by us direct from Sweden. It is water and germ proof and very strong.

Fit of Cover. They are made in 5 sizes and will fit any Text book. They are shaped to fit without wrinkles, and to go on with ease.

Samples. Samples will be mailed on request. See the Best Cover made.

The University Publishing Co.

Chicago, Illinois
623 So. Wabash Avenue

Lincoln, Nebraska
1126-1128 Q Street

42,216

of our typewriters are used for instruction purposes in the schools of the United States and Canada—many thousands more than all other makes combined.

These figures have been obtained through a careful, thorough and exact school census just completed by us.



This isn't assertion; its evidence. It means that the business world uses so many of our machines that 42,216 of our typewriters are needed by the schools to train the operators.

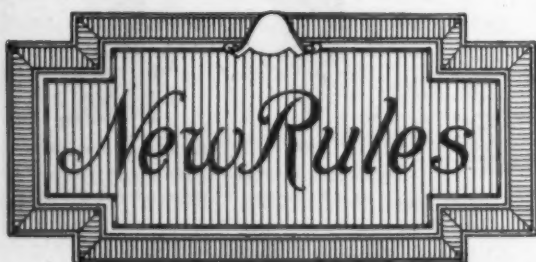
It pays every pupil best to learn what the business world demands

Remington

Typewriter Company

(Incorporated)

New York and Everywhere



NEW RULES AND REGULATIONS.

The school board of Holyoke, Mass., has revised its rules and regulations to the effect that the superintendent shall have the power to nominate three candidates for the principalship of any local school building and the final choice shall be made from the three so nominated. The change is practically the investment of complete appointive power in the superintendent.

Another change gives the superintendent power to remove any teacher at any time when in his judgment the best interests of the school so demand.

Another rule requires that candidates for positions as teachers shall be required to pass examinations before being considered for appointment. Teachers may be required to pass promotional examinations before receiving transfers to higher grades or prior to receiving an annual automatic increase in salary. Candidates must have at least one year's successful experience as a teacher in charge of a school. High school instructors must have the same experience.

St. Louis, Mo. The board of education has adopted rules by which the supply commissioner will keep three separate and distinct accounts of all articles which he buys. The purpose is to make the accounting system of the board more complete and to distinguish better between the educational and general supplies.

The first account will include educational supplies, distinguishing between textbooks and apparatus and special items of general educational use.

The second account will take in operating supplies, the third materials for building purposes, and the fourth fixed equipment and furni-

ture. Another rule of the board will require a semi-annual inventory of the stock of furniture and supplies on hand in the supply department. This inventory will be made by the auditor of the board, independent of the supply commissioner, and will include the value of all materials on hand.

Spokane, Wash. The school board has recently begun the enforcement of the rule that all moneys obtained through entertainments for school purposes shall be turned over to the school secretary. This official is given charge of the accounting thus removing the responsibility from the principals.

Boston, Mass. The school board has amended its rules relating to the appointment of additional teachers to read as follows:

At all other times, when the appointment of an additional teacher is under consideration, the total number of pupils belonging on the last school day of the month preceding the date on which the appointment is to take effect, shall be used in determining the number and rank of teachers to which the school or district is entitled.

Boston, Mass. The school board has amended its rules relating to the authorization of educational material by the board of superintendents to read as follows:

The board of superintendents shall approve all other books of reference and all educational material used directly in the instruction of pupils.

The school committee of Boston, Mass., has inserted the following paragraph in its rules:

No teacher shall sell or keep for sale any books, stationery, or other articles required for use in the schools, award diplomas or prizes to pupils, or solicit any present from them; provided, that this restriction shall not prevent the sale at cost of articles or of food made or prepared by pupils in their pursuance of a course of study in sewing, cookery or manual training upon such method as may be approved by the superintendent and by the business agent.

Sacramento, Cal. The director of education has adopted a code of rules for the conduct of the schools. Some of the more important ones are as follows:

The storekeeper for the school department shall be the city purchasing agent.

General meetings of teachers may be held at which teachers, principals and supervisors shall assemble at the call of the superintendent. Principals may call similar meetings of teachers of their respective schools. All meetings, however, shall be under the direction and supervision of the superintendent.

Teachers must attend all general and special meetings called by the superintendent and no excuse will be accepted that would not justify their absence from school.

Fire drills shall be conducted at least once each month, and instructions must be given to the pupils regarding their acts in case of fire.

Teachers shall not give private instructions to any pupils for pay, nor shall private instructions be given in any schoolhouse.

Teachers must give two weeks notice of intention of resigning. If not, two weeks of their pay shall be forfeited to the city.

For every day's absence of a teacher one-thirtieth of her salary for that month shall be withheld. Five days shall be allowed in each semester for personal illness or death in the family without loss of salary.

After two or more years of continuous service for the city, teachers may receive six months' leave of absence for the purpose of educational improvement and advancement, but the absence shall not extend past the school year in which it is made.

Omaha, Neb. The school board has passed a resolution which prohibits the holding of entertainments or social affairs under the auspices of the high school unless the same be approved by the superintendent and the board.

The action was taken following complaints that dances given presumably under the auspices of students were in reality participated in by outsiders. The resolution is designed to prevent gatherings of questionable character.

Butte, Mont. The school board has approved the operation of the "delinquent period" as adopted in the high school and has recommended the preparation of a set of rules governing the same. The plan calls for the closing of the school session a half hour earlier.

NATIONAL EDUCATIONAL FILM COMPANY

Supplies, on a rental basis, strictly Educational and Scientific Motion Picture Films to Schools, Colleges, Y. M. C. A., Settlement Houses, and for Home Entertainments

We also supply an Ideal Inexpensive Equipment for projecting the pictures

Motion Pictures have not been more extensively used in Educational work for the reason that it has been impossible to obtain a sufficient supply of films of the right character, or projecting machines that are safe and durable with which to show the pictures. WE WILL SUPPLY YOU WITH BOTH.

The catalogue includes some of the most notable and instructive existing Educational Pictures; most of them, however, have never before been shown. In every case they are newly made from the negatives.

NEFKO PROJECTING MACHINE

Complete outfit, using Standard Film, equipped for both pencil carbon and electric lamp. **THIS MACHINE DOES THE WORK.**

Price, including Rheostat; Film Rewinder; Magazines; Adjustable Screen 9' x 9' and Carrying Cases.

NEFKO CAMERA—1913 MODEL

The outfit consists of the Camera complete with two interchangeable film boxes, each holding 200 feet of negative film; 1 Bausch & Lomb Lens 3" 50-MM; 1 View Finder; 1 Panoramic Tripod with Revolving Head and Tilting Table, and Carrying Cases. \$97.50.

General Agents for Simplex Projecting Machine,
Price, \$275.00

We also supply you with raw film with which to take pictures yourself, develop your negative and print your positive film.

Carbons and Full Line of Supplies constantly on hand.

SEND FOR CATALOGUE AND TERMS

151 West Forty-second Street, New York

The Foremost Educators Use Motion Pictures in their Work

Motion pictures possess an unusual interest for both young and old. They present their stories vividly and teach their lessons graphically. And what they tell is not forgotten. This is why they are being used more and more by schools and other institutions throughout the country.

If you are engaged in educational work you will be interested in the special service offered by the Educational Department of the General Film Company. This service provides a wide range of special motion picture programs, including such subjects as philosophy, religion, sociology, philology, natural science, useful arts, fine arts, literature and history. Lectures, lecturers, machines and operators are furnished as desired.

A line will bring you some interesting facts. Please address:

General Film Company

Educational Department

71 West 23rd Street, New York



MANUAL ARTS STUDIES.

Supt. H. C. Dietrich of Ashtabula, O., has submitted figures on the cost of manual training and domestic science in the public schools during the past school year. There were a total of 138 girls and 260 boys taking the two courses. The manual training department had an appropriation of \$129.80 while the domestic science department had supplies amounting to \$172.63. The cost per pupil in the manual training department was fifty cents for the year, while in the domestic science department the cost was \$1.25.

Bay City, Mich. Supt. E. C. Ferguson has been granted permission to make arrangements for the introduction of a practical trades course in connection with the work of the high schools.

It has been found that the work in the high schools has to a great extent been confined to the interests of those who expect to go to college. To offset this evil, it has been decided to provide instruction in the trades and to arrange it in such a way that the students may devote a certain number of hours each week to the trade selected and the remainder of the time to the study of high-school subjects. Students are thus enabled to pursue the high-school course with the assurance of a tangible means of support at the end of the four years.

Tacoma, Wash. The school board has recently decided to try out a scheme in the public schools whereby pupils of the manual-training classes will spend half a day at the bench and the remainder at their books. It has been found that the scheme has made it possible for students to secure higher ratings than those whose time is occupied solely with the academic work.

Iowa City, Ia. Pupils in the manual training school will make benches and other furniture for the school buildings during the coming vacation. It is expected that the pupils will gain much helpful knowledge and skill from the work and at the same time will be the means of great savings to the school authorities.

Joliet, Ill. The printing department of the public schools has become a great success and pupils from the sixth grades have been able to do very creditable work. A new supply of printing equipment has recently been ordered which will double the present accommodations.

Cincinnati, O. Supt. Randall J. Condon has recommended to the school board the opening of a "home school" next September. The school will be maintained in a flat or dwelling house where the girls may be taught all the principles of housekeeping and homemaking. Mr. Condon believes that girls in the public schools should know how to care for homes and that the boys should be instructed in the art of supporting them. The present idea was tried out while Mr. Condon was superintendent at Providence, R. I., and it proved a great success at that time.

Los Angeles, Cal. A professional class for chefs has been added to the school curriculum. The class was formed for the purpose of meeting the need for a variety of vocations for boys. Some boys do not like sloyd work and prefer to be cooks. The complete course is given from simple foods to the richest delicacies. Hotel and restaurant cooking is featured.

Loveland, Colo. The domestic science class of the high school recently served a series of four three-course luncheons. At each of these, eight guests were invited and included prominent business men, members of women's clubs and school officials.

The luncheons were in charge of six girls who were responsible for the planning, cooking and serving of the food. The cost of each was figured at \$2.25. The domestic science course covers three years and has met with the approval of the citizens and parents.

Supt. Percy M. Hughes of Syracuse, N. Y., has recommended to the board of education that "home schools" be established.

The home school is an adjunct to manual training and has been successfully tried out in various cities. Supt. Hughes recommended that a building be erected on school property where housekeeping might be taught by a competent instructor. Children would be taught not only cooking and baking, but everything pertaining to successful housekeeping including mending, sewing and household economy.

It has been found that in cities where the plan has been tried it has been useful to a great extent in what is actually taught, and is also very instrumental in producing a healthy, homegiving sentiment and an orderliness and neatness that cannot be too highly commended.

Minneapolis, Minn. Special instruction for foreigners who are unable to make sufficient headway in regular classes has recently been discontinued. The change was necessary on account of lack of funds. It is expected that the work may be resumed next fall.

Sacramento, Cal. The school board has granted permission to establish a class in the Italian language in one of the classrooms of the public schools.

Mason City, Ia. The school board has abolished supervisors in music and penmanship. In the future all teachers will be required to teach these branches in connection with their other classwork. Domestic science and manual training supervisors will be continued as at present.

Holingson, Kans. Four new departments have been added to the course of study including manual training, domestic science, agriculture and art.

Cleveland, O. Supt. J. M. H. Frederick has begun among public school children the cultivation of respect for public property and the inculcation of a desire to protect it. Mr. Frederick believes that graft and the misuse of public funds can in this manner be abolished and to this end has introduced the teaching of local patriotism.

Malden, Mass. Two afternoon classes in cooking have been established. The classes were opened for the benefit of forty girl students in the high school who were not able to include this study in their present study schedule.

Blackfoot, Ida. The students of the domestic science department of the local high school have solved the question of expense in connection with the study of cooking. It has been found that milk can be secured at a reasonable cost which makes it possible to make good home-made cheese at the small price of ten cents per package. Each cheese is enclosed in a suitable wrapper, properly labeled and placed on sale twice each week. Housekeepers who wish to purchase may secure the same in advance by consulting any of the students. The transactions do not interfere with any local industry and the pupils are able to furnish a good article of diet and also pay for the running expenses of the cooking department.

BALTIMORE ADOPTS "Practical Course in Touch Typewriting"

We have pleasure in announcing that the Baltimore Department of Education has adopted for use in the Baltimore City College and other schools, Charles E. Smith's "A Practical Course in Touch Typewriting."

More typewriting championships have been won by the followers of Charles E. Smith's "Practical Course in Touch Typewriting" than by those of any other system. The reason lies in the pedagogical plan which promotes speed and accuracy from the first. Students get the right start, and are thus enabled to acquire the highest degree of speed in the shortest possible time.

ELEVENTH EDITION—REVISED AND ENLARGED. Price, Cloth 75c.

Teachers' examination copy, postpaid, 50c. Mention school.
Also adopted by the New York and Boston High Schools.

ISAAC PITMAN & SONS, 2 W. 45th Street, New York

Publishers of "Course in Isaac Pitman Shorthand," adopted
by the New York High Schools.

NEW READERS

Lippincott's **PRIMER**
" **FIRST READER**
" **SECOND READER**
" **THIRD READER**
" **FOURTH READER**

By HOMER P. LEWIS, Supt. Schools, Worcester, Mass., and
ELIZABETH LEWIS.

The reading matter is excellent—the illustrations are exquisite—the
mechanism is faultless.

Do you need new books for the little folks? If so, get these books.

J. B. LIPPINCOTT COMPANY, Philadelphia

MIGHTY ENGLAND

THE STORY OF THE ENGLISH PEOPLE

By WILLIAM ELLIOT GRIFFIS, D. D.

Author of *Brave Little Holland*, *The Pilgrims in Their Three Homes*, *Christmas Story*, etc.

12 mo., Cloth. 304 Pages. Price, Postage Paid, 75 cents.

Illustrated from English Pageants.

A compact book that tells vividly the story of the development of
England from primitive times to the present. Suitable for schools,
libraries and home reading.

CHRISTOPHER SOWER COMPANY

PUBLISHERS

124 No. Eighteenth St.

PHILADELPHIA



The Teacher's Health.

By Lewis W. Terman, Leland Stanford, Jr.,
University. 137 pages. Price, \$0.60, net. Hough-
ton Mifflin Co., Boston.

Scholarly treatment of an important subject
makes this monograph unusual. In it the author
has summarized and interpreted the most im-
portant investigations bearing upon the hygiene
of the teaching profession. The statistics given
justify the contention that over-pressure during
professional preparation, unhygienic conditions
in schoolrooms, overlarge classes, long hours of
work, exhausting nature of work, tend to lower
rapidly the vitality of teachers and to induce
certain well-defined forms of ill health. As com-
pared with the general population an excessive
mortality from tuberculosis is found among
teachers. A hazardous occupation, particularly
for women. Protean forms of nervous disorders
also make a sorry, serious list of disorders. No
wonder the official or practical age of retirement
comes relatively early in life.

Still, many of these evils are remediable.
Sane advice is given normal schools regarding
their responsibilities in this matter. Practical
health suggestions to teachers form the contents
of another chapter. The mind lingers, however,
over the conclusions drawn by the German in-

vestigator, Wichmann, that reducing over-crowd-
ed classes, improving unhygienic conditions of
schoolrooms, segregation of exceptional children
would remove three heavy handicaps. Health
and efficiency among teachers and pupils would
probably be wonderfully improved.

Pauline's First Reading Book.

By Lady Bell. 141 pages. Price, \$0.60. Long-
mans, Green & Co., New York, N. Y., and Lon-
don.

A real girl, Pauline, learned to read from this
book before it was printed. She liked it greatly,
so it has been printed that other little children
may enjoy reading about Tom and Jane. Short
words often used, short sentences in short lines,
capital type, bright red cover are some features
of this continued story.

Everyday English.

By Franklin T. Baker and Ashley H. Thorn-
dike. 355 pages. Price, \$0.60, net. The Mac-
millan Co., New York City.

Compiling a textbook for the study of English
as well as teaching English, calls for great judg-
ment. This quality appears in Part One in the
omission of curious but unessential points, in the
orderly arrangement and clear explanation of
essential points. The chapters on root infini-
tives, infinitives in -ing, substantive phrases and
clauses are particularly good. The illustrative
sentences always fit the points to be illustrated
and sometimes have a literary value. In Part
Two pupils are not required to evolve written
exercises from their inner consciousness. Fine
selections give a basis for written exercises
varying in difficulty and in character. Diagram-
ming is kept within the limits of simplicity.

A practical and philosophical book.

E. P. DUTTON & COMPANY

announce the establishment of an educational department by the
purchase of the Thompson Brown Company of New York, Boston
and Indianapolis. The combined educational list already includes

The Temple Shakespeare

(with Prefaces, Notes and Glossaries. 40 volumes, cloth, each 35 cts.)

Everyman's Library

(Over 600 selected English Classics in reinforced library binding, each 50 cts.)

Nichol's New Graded Arithmetics

The Metcalf-Call Readers

Elson-MacMullan Elementary Histories

The Ideal Spellers

Gifford's Progressive Mental Arithmetics

The Dutton & Kelley Graded Course in English

and a selected list of supplementary readers for all the grades.

SEND FOR CATALOGS

E. P. DUTTON & COMPANY

EDUCATIONAL DEPARTMENT

Successors to THOMPSON BROWN CO.

BOSTON
120 Boylston Street

681 Fifth Avenue
NEW YORK CITY

INDIANAPOLIS
2633 Ashland Avenue

Mace History Adoptions

Books Just Taken for State of Oregon (Adv. Book)

Re-adopted for Idaho

Adopted for Arizona, Nevada, Montana, Utah

Missouri Uses Them in 15 Counties

(Just Adopts for Joplin and Webb City)

Washington 24 out of 39 Counties

Arkansas Takes Them in 8 Counties

(Re-adopts in 2 Counties)

Adopted in Eight of Ten Largest Cities

Write for descriptive matter

Chicago

RAND McNALLY COMPANY

New York

Easy Reading Makes Reading Easy The Buckwalter Readers

	List Price
Buckwalter Easy Primer	\$.25
Buckwalter Easy First Reader	.27
Buckwalter Second Reader	.34
Buckwalter Third Reader	.42
Buckwalter Fourth Reader, 400 pages	.63
Buckwalter Fifth Reader, 416 pages	.70

Usual Liberal Discount for Introduction

Sale Constantly Increasing

Correspondence Solicited

PARKER P. SIMMONS CO. Inc.

No. 3 East 14th Street

NEW YORK

Plant and Animal Children: How They Grow.

By Ellen Torelle. Cloth, 235 pages. Price,
\$0.50. D. C. Heath & Co., Boston.

A man who certainly knew how to teach su-
perbly once said to the writer, "Almost anything
can be said, if it is only said in the right way."
His opinion has recurred again and again while
reading this book. Purity of thought and purity
of style go hand in hand in this delightfully sim-
ple but strictly scientific textbook.

Of the two groups of chapters, one deals with
plants, the other with animals. In the green
thread-plants, in the flowering plants, in the
coniferous pine the phenomena of growth and
reproduction are wisely handled. In the other
group the habits, habitat, and life histories of
type forms of animals from the lowest to the
highest are discussed.

The 335 illustrations form a running commen-
tary on the text and in their way tell a con-
nected story.

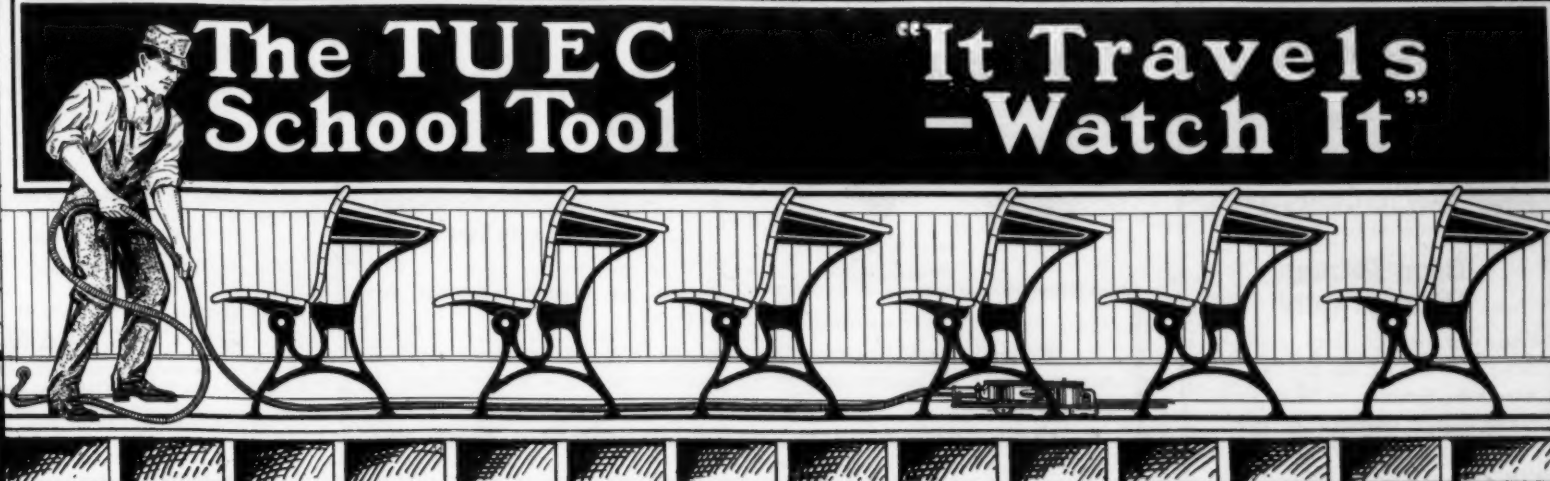
As a former fellow of Bryn Mawr College and
scholar at the zoological station at Naples the
author has had special training and large oppor-
tunities. But a good deal must go into the mak-
ing of such an exceptional book for pupils of ele-
mentary grades—a book leading to botany, zool-
ogy, agriculture.

The Life of Sir Isaac Pitman.

By Alfred Baker, F. J. I. Centenary edition,
revised. Price, \$1.00. Published by Isaac Pit-
man & Sons, 2 West 45th st., New York.

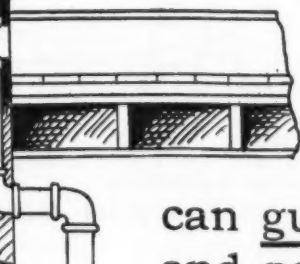
Honor to whom honor is due is given in this
centenary edition of the life of Sir Isaac Pitman.
In his boyhood and early manhood he was eager
for self-improvement, bent upon accuracy, help-
ful in the philanthropic movements of his day.

(Continued on Page 46)



Three (3) Questions for August

1. Will your schoolroom floor be well cleaned next fall?
2. Have you abandoned the old corn broom or are you still killing your janitors?
3. Have you investigated the Tuec method of cleaning schoolroom floors?



You have the answer to these three questions at your finger tip. Why not investigate the TUEC SCHOOL TOOL and let us actually prove that we can guarantee to sweep between your desk legs thoroughly and perfectly?

Think of it, you school officials.

The TUEC SCHOOL TOOL, working in conjunction with our method of cleaning schools actually reduces your janitor labors to a minimum.

The TUEC SCHOOL TOOL operates only on the Tuec Vacuum Cleaning System. We furnish other school tools to clean blackboards, chalk troughs, corridors, walls, etc., radiator tools for cleaning radiators and tools of every character for the cleaning of school-houses.

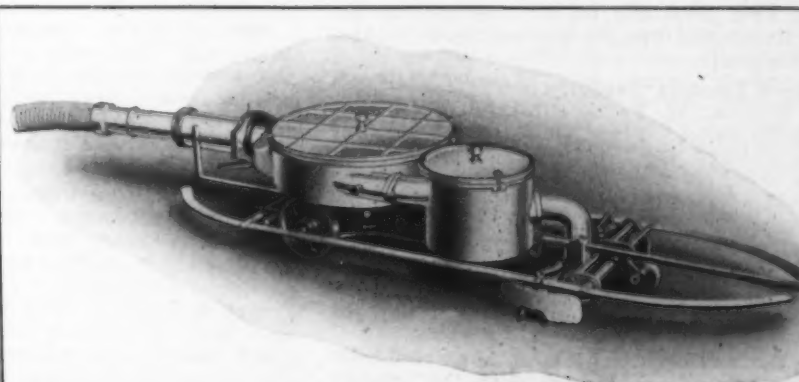
Write today for prices and catalogs.



The United Electric Co.

7 Hurford Street

CANTON, - OHIO



**"Be sure you are right,
then go ahead."**

—Davy Crockett.

The student of shorthand who takes up the first system he hears of may live to rue it. Better follow Davy Crockett's advice and take time to investigate.

Benn Pitman Phonography

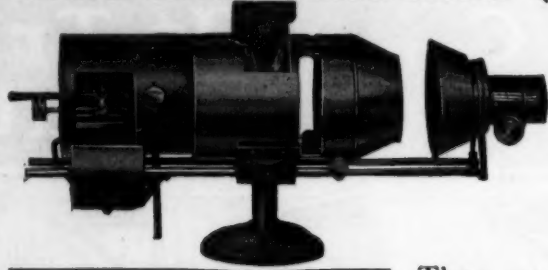
has a history of sixty years of unbroken success as the leading American System of Shorthand. Look into it thoroughly before you pick your system. Did you ever hear of a Benn Pitman phonographer saying, "I wish I had made another choice?" Did you ever hear of anyone who heard of such a thing?

For full information address the publishers,

**The Phonographic Institute
Company,**
CINCINNATI, OHIO.

BENN PITMAN, Founder,
JEROME B. HOWARD, President.

"McIntosh Lanterns are Honest Lanterns"



The
Miopticon
is the
**Ideal
Classroom
Lantern**

There are several reasons for this, but they are summed up briefly in:

Efficiency—Scientific and optical perfection which insures the best and most perfect pictures on the screen—sharp—clear—brilliant.

Quality—Absolute mechanical perfection, guaranteed material and construction.

Utility—Ease of operation, simplicity, accessibility of working parts. The Miopticon is always ready to operate and never fails at the critical moment. Attaches to the ordinary incandescent socket.

It will be sent on approval, if your supply store can't furnish it. Its low cost puts it in the reach of every school.

Specify the Miopticon in your requisition for Fall Supplies.

Write for A Booklet. Just send a postal to

427 Atlas Block **McINTOSH STEREOPTICON COMPANY** Chicago

NEVER DISAPPOINTS HOW COULD IT

When Barnes Practical - Course pupils make more rapid progress?

"My class is at present far ahead of last year's class, which used the text."—W. H. Higbie, Huntington, L. I., High School.

When they are interested from start to finish?

"Practical, simple, concise, and scientific in its methods. Holds the interest of pupils from first to last."—M. S. Cole, Marion, Ind., Normal.

When they learn the style of

SHORTHAND

that wins when up against the real thing, but waste no time on useless theories?

"Can produce better stenographers with it than any other system in use."—Horace E. Robinson, Federal Business College, Perth, Ont.

"The most teachable text I have used. It contains all the wheat with the chaff eliminated."—Frank J. Lorenz, College of St. Thomas, St. Paul, Minn.

When they read their notes better.

"Our pupils were never so sure of their notes."—Binghamton (N. Y.) School of Business.

Are not these results worth while? Investigate today at our expense. Paper bound copy free to any shorthand teacher giving name of school and specifying either Benn Pitman or Graham.

THE **BARNES** PUB. CO.,
ARTHUR J. ST. LOUIS, MO.

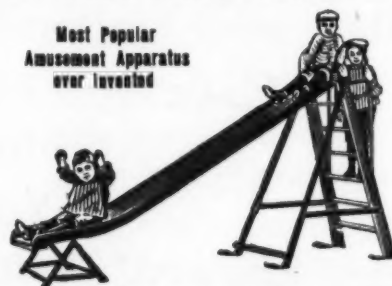
**GAS STOVES
FOR DOMESTIC
SCIENCE
DEPARTMENTS**

George M. Clark & Co.
Division American Stove Co.
CHICAGO

TOTHILL'S PLAYGROUND APPARATUS

Strongest,
Safest,
Most Durable
Apparatus
Manufactured

Most Popular
Amusement Apparatus
ever invented



Used
in every
Playground

Pat. Jan. 12, 1909

Tothill Playground Apparatus adopted and used exclusively by the City of Chicago. Send for Catalogue.

W. S. TOTHILL (Established 1875) 1807 Webster Ave., Chicago, Ill.

(Continued from Page 44)

His unflagging industry in perfecting his system of shorthand was an industry born of an inventor's enthusiasm. He gave much gratuitous instruction by correspondence. His pressroom, sometimes cramped and poorly lighted, was steadily printing books, journals, leaflets on shorthand. He and his helpers lectured throughout England on the merits of this highly practical art. In twenty-five years the system had gained a firm foothold in England, Australia, and the United States.

Testimonials now marked the appreciation in which he and his work were held. The climax came in 1894 when he was recommended for Knighthood on the ground of his "great services to stenography and the unusual utility of that art."

During many of the years between 1837-1897 the efforts of Sir Isaac Pitman for a simplified spelling of English were almost as persistent as for shorthand. He did not live to see success attend the drastic reforms he advocated. Perhaps his system was ahead of its time, perhaps it was a personal fad.

The author has given us a picture of a man of simple life, of strict integrity, of a deeply religious nature, of a seeker after excellence in things both great and small. The good he has done lives after him, it has not been interred with his bones.

Southern Literary Readings.

By Prof. L. W. Payne, University of Texas. Cloth, 501 pages. Price, \$0.75. Rand, McNally & Co., Chicago, Ill.

The study of American literature is wholly incomplete without serious attention to the writers of the South. The masterpieces of Poe, Harris, Sydney Lanier, Audubon, Ryan, Allen and O. Henry have stamped an indelible character upon our national literature and the study of their works properly constitute a part of school literature.

For the southern schools no book could be more suggestive or valuable than the present volume. Thirty-four authors are represented by

seventy-four selections, most of which are complete. The writers are taken up in chronological order so that the book furnishes a survey of southern literature, and in a measure, a picture of the social and economical life of the South during the ante-bellum days, war time, and the re-construction period.

The book will splendidly fill the requirements of pupils in the eighth grade and the first-year students of the high school. Each of the selections is preceded by a portrait and a biographical sketch of the author, and an estimate of his literary productions. The notes in the back of the book include such explanatory matter as is necessary to make the allusions clear, and a number of thought questions and a literary analysis of the work. The book will appeal as much to the adult reader as to the student and should find a place in the home of every lover of southern literature.

A Guide for Laboratory Geography Teaching.

By O. D. Von Engeln, Cornell University. 20 pages. The Macmillan Co., New York.

A Laboratory Manual for Physical and Commercial Geography.

By R. S. Tarr and O. D. Von Engeln, Cornell University. 214 pages. Price, \$0.25 net. The Macmillan Co., New York.

Both guide and manual seem fitted to gain their ends. The guide so explains its aims that the average teacher may intelligently conduct the laboratory work outlined in the manual which is planned for a minimum of merely mechanical work with a maximum of close observation and deduction.

Picard's La Petite Ville.

By John C. Dawson. 199 pages. Price, \$0.40. Ginn & Co., Boston, Mass.

This comedy touches off the narrow life of a provincial town in France a few years after the French Revolution. The life of a small town in more than one country will in some particulars match the life pictured in "La Petite Ville." In this respect the play may be said to have a universal interest.

The scholarly notes give aid over allusions to individuals, institutions, special conditions of this period. These with a short personal sketch, a glossary, a partial list of the many works of Louis Benoit Picard, form the major part of the editorial work.

PUBLISHERS WIN FIRST TEST.

The Oklahoma state board of education has been enjoined from proceeding to make new textbook adoptions and thereby nullify the contracts entered into with seven publishers in 1912. Judge J. J. Carney, of the Oklahoma city circuit court, in granting the injunctions upheld all of the points raised by the complaining firms and an appeal will be immediately filed by the State.

The Oklahoma state board made contracts for books with the companies on July 29, 1912. The legality of the contracts was questioned at the time on account of the fact that they did not carry the approval of the governor. The new board which came into office in January of this year advertised that the board of education would meet as a textbook board on July 15, 1913, to make new adoptions and new contracts. It was to prevent this action that the interested companies asked for a temporary injunction.

Judge Carney held that the government had no authority to remove Robert Dunlop, F. O. Hayes and Scott Glenn from the board of education, when the board was on the point of making the textbook adoptions, and that these men were not legally removed until the state senate in December refused to confirm their appointments. The judge held that the text-book companies had done everything demanded of them in the contracts of 1912, and that the fact that Governor Cruce did not approve the publishers' bonds did not affect the property rights acquired by the favorable action of the board of education.

That the board that made the adoptions had the power to do so without the approval of the governor, and that it was not in the power of the governor to defeat the laws of the state,

SILENT GIANT



NOT IN
ANY TRUST OR
COMBINATION

Insured for a lifetime
against all
Defects and Breakages

Get the Desk that will give you
STRENGTH, SERVICE AND SANITATION

ALL ORDERS FILLED PROMPTLY
CATALOGUE SENT ON REQUEST

PETER & VOLZ CO.
MANUFACTURERS

School Furniture, Assembly Chairs and School Supplies
Office and Factory: ARLINGTON HEIGHTS, ILL.

was held by the ruling. The companies affected are Atkinson, Mentzer & Company, Chicago; Allyn & Bacon, Chicago; Colonial Book Company, Chicago; Scott, Foresman & Company, Chicago; Charles Scribner & Sons, Chicago; Silver, Burdett & Company, Boston, and W. H. Wheeler & Company, Chicago.

TEXTBOOK NEWS.

Des Moines, Ia. The school board has recently adopted the Riverside readers, primer and books I to VI (Houghton-Mifflin); Aldine readers, primer and books I to II (Newson); Elson's readers, books IV to VIII (Scott-Foresman); Tarr & McMurray's Geography (Macmillan); Gordy's United States History (Silver-Burdett); Mace's History (Rand-McNally); Durell & Hall's primary arithmetic (Merrill); Watson & White's arithmetic (Heath).

The School of Commerce Accounts and Finances of the New York University has recently introduced a course in shorthand and has selected for its text the Isaac Pitman Shorthand Manual.

Joplin, Mo. The school board has adopted for introduction in September the following text books: Mace's primary history (Rand-McNally); Dickinson's American history (Macmillan); Wentworth-Smith arithmetic (Ginn); Gordon readers (Heath); Baldwin and Bender readers, grades four to eight (American).

The Alabama adoptions which were made in June last, provided for the exchange of old books which the pupils may have, either for new books of the same kind or for similar books of the next higher grade. Under the previous adoptions the publishers refused to accept damaged books. The new contracts are interpreted by the state authorities to compel the acceptance of all books returned no matter how badly damaged.

An Advanced English Grammar by Prof. G. L. Kittredge, intended primarily for high schools has just been issued by Ginn & Co. While it is primarily a textbook, the grammar will be found useful as a desk manual for advanced students, both in the matter of rhetoric, and of historic grammars.

The Kansas state school book commission has created the office of compiler and critic, has

fixed the salary at \$1,800 a year and has appointed G. G. Burton of Topeka to the position. Mr. Burton was at one time the Kansas representative of the American Book Company and with his wife, Ella G. Burton, has been active in agitating for book reform for many years. Mrs. Burton was a candidate for the secretaryship of the commission.

The school board of Nashville, Tenn., has adopted the following list of textbooks: Tarr & McMurray's geography (Macmillan); Thompson's U. S. history (Heath); Davison's Human Body (American); Hamilton's arithmetic (American); Sewell's Practical English (Lippincott); Webster's school dictionaries (American); King's Woodworking (American); Medial Writing books (Ginn); Applied Arts Drawing Books (Atkinson); Educational Music reader (Ginn); Long's American Literature (Ginn); Brigham's commercial geography (Ginn); Salisbury's physiography (Holt).

Keokuk, Ia., adopted Elson's readers (Scott-Foresman); Applied Arts Drawing books (Atkinson); Salisbury's geography (Henry Holt).

Book adoptions will be made in Kentucky during the months of June and July 1914.

The Peters & Brumbaugh Method Readers have been recently adopted for the city of Charleroi, Pa.

The United States Geological Survey is offering 200 numbers of the geologic atlas at five cents per copy. A recent fire in the basement of the survey impregnated the entire stock of atlases with the smell of smoke and the director has determined to sell all of the copies on hand, which originally cost from twenty-five to fifty cents each, at the uniform nominal price of five cents.

The New Barnes writing books are becoming popular not only in the United States but also in Canada. One of the late adoptions is the entire Province of Alberta, Can.

Idaho Adoptions.

The Idaho state board of education, at a meeting held in Moscow, adopted books for a term of six years.

New Books—Row-Peterson readers (Row) Studies in Reading (University); Palmer's Writing system (Palmer Co.); Tarr & McMurray's geog-

raphy (Macmillan); Drigg's Language Lessons (University); Prince's Practical Grammar (Ginn).

Readoptions—Hunt's speller (American); Walsh's arithmetic (Heath); Mace's United States history (Rand & McNally); Our Government (Scribner's); Blaisdell's How to Live and How to Keep Well (Ginn).

MR. LEE DIES.

Mr. Wm. H. Lee, sole owner of the publishing firm of Laird & Lee, died on July first at his residence in Chicago following heat prostration.

Mr. Lee was born in Philadelphia, sixty-six years ago and came to Chicago when a young man. He began the publishing of books in a small room on Lake Street, Chicago, in 1887 and associated himself later with Charles H. Laird. The firm at first published general books, principally fiction, but during the past ten years has devoted much attention to the making of dictionaries. It was Mr. Lee's ambition to publish a complete series of school and college dictionaries and it was the work of the last book of his series which so weakened him, that he was unable to withstand the effect of the summer heat.

AMONG BOOKMEN.

Mr. C. E. Pollard has resigned from Lyons & Carnahan. He resides at Brockton, Ill.

Mr. Wilbur H. Williams, who covers the New England States and Pennsylvania for the Prang Company, is spending the summer season at the New York School of Fine and Applied Art, Boothbay Harbor, Me. This is the largest art and music school on the New England Coast and includes a great literary and professional colony.

Mr. J. L. Hunt, who represents the Milton Bradley Company in New York State, reports a large increase of business during the current season.

Mr. W. O. Baker, who has represented Charles Scribner's Sons in Wisconsin for several years, has been promoted to the managership of the Pacific Coast office of the firm. He assumes charge of his new work on July first and makes his headquarters in San Francisco.

MAKE YOUR OWN SNOW-WHITE PASTE

For 8 1/2 Cents a Quart

IDEAL FOR SCHOOL USE



Let us send you a free sample package of the new idea in paste—

JELLITAC
The Paste Powder

Mix a little with cold water as needed and the usual 50% waste, due to spoiling or drying up of paste bought in the wet form

is saved. Besides—

Jellitac is a distinct, new departure in paste from the standpoint of efficiency.

"It sticks"
Test it
yourself

For school, kindergarten and library use Jellitac supplies the very acme of adhesive quality, at a cost of but 8 1/2 cents a quart. A postal brings a free sample, or we will gladly send a trial dozen cartons prepaid by parcel post for \$1.00, each carton producing a full quart of snow-white paste. Special gross price to School Boards, still further reducing the cost.

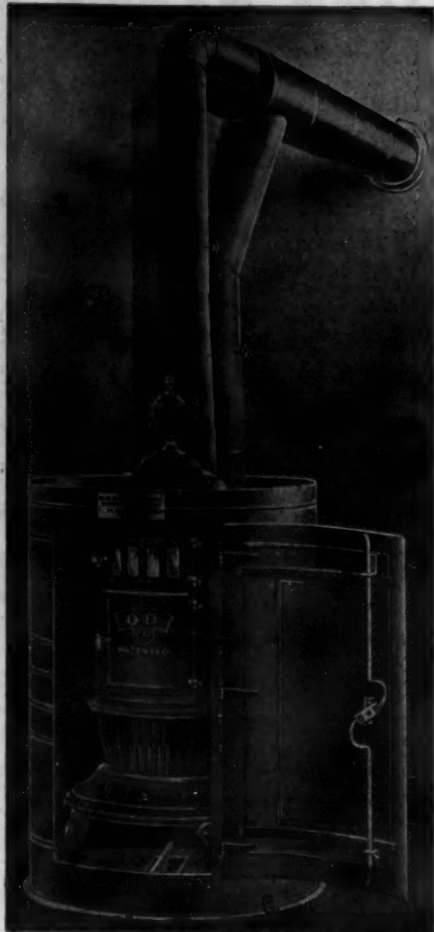
CONSIDER OUR OFFER — SEND FOR A TRIAL DOZEN CARTONS TODAY

ARTHUR S. HOYT COMPANY

90-92 W. Broadway

New York City

Old Dominion Patent Heating and Ventilating System



**Minimum Cost---
Maximum Results**

"The Spirit of Progress"

is exemplified in the Nation Wide Movement for better and more sanitary heating and ventilating of our schools, particularly in rural districts. The OLD DOMINION PATENT HEATING AND VENTILATING SYSTEM IS DAILY GROWING IN DEMAND in every State in the Union. Why?

It does not re-heat and circulate the foul air in the room. It warms the room with pure fresh air and combines a duct or pipe to exhaust the vitiated or foul air. No other system does this.

It does not require a separate independent foul air flue of brick or metal as all other systems do.

It is simple, easy to set up, and easy to regulate. All other systems are complicated.

It does not clog with soot and rot out, requiring expensive experts to repair; other systems do.

It draws the foul or vitiated air from the floor of room by a syphon suction combined with the heater; no other system can do or does do this.

It is the cheapest of all heating and ventilating systems, because it combines heater, ventilating drum, ventilating mat, stove pipe and foul air pipe or duct. Pipe furnished free five feet from center of heater, additional lengths of large pipe, 50c per foot. All other systems require expensive independent foul air flues or ducts, either metal, brick or stone.

Send for descriptive catalog

VIRGINIA SCHOOL SUPPLY COMPANY
No. 18 South Ninth Street, Richmond, Virginia

BOARD OF SCHOOL DIRECTORS

MILWAUKEE, WIS.

FRANK M. HARBACH, SECRETARY

Milwaukee, Wis., April 14, 1913.

A. J. Nystrom & Co.,
623 S. Wabash Ave.,
Chicago, Ill.

Gentlemen:-

Will you please enter our order for the following maps in accordance with your contract of last year, f.o.b. School Supply Dept., 10th & Prairie Sts.

"W. & A.K. Johnston's New World Wide Series Political Maps, mounted singly in steel spring roller case."

- 28 - Africa
- 26 - Asia
- 8 - Australia
- 27 - Europe
- 25 - North America
- 21 - South America
- 19 - United States
- 23 - World
- 5 - Eastern & Western Hemispheres.

"W. & A.K. Johnston's Imperial Series Black-board Outline Maps mounted singly on dust proof portable board."

- 41 - Europe
- 42 - North America
- 42 - United States.

Yours truly,

Secretary.

This may help you when you must decide whose maps your schools should have.

Mr. Magill to Springfield.

Mr. Hugh S. Magill, Jr., formerly principal of the Princeton, Ill., high school and at present member of the Illinois State Senate, has been elected superintendent of schools at Springfield to succeed Mr. J. H. Collins, resigned. Mr. Magill will enter upon his duties about September first and will retain his seat in the State Senate.

The election of Mr. Magill followed a nationwide search for the best available candidate. The choice of the board was made with the expert advice of the state superintendent of Illinois, of the president of the University and of several other prominent educators.

Mr. Magill was born in Sangamon County, Illinois, near Auburn, where his father still resides on the home farm. His early education was received in the country schools and his first work as a teacher was in one of the district schools of his native county. After teaching several terms he entered Wesleyan College at Bloomington and upon graduation completed his professional training with a post-graduate course in the University of Chicago.

In 1894 he accepted the principalship of the Auburn high school, where he served until 1898. In the same year he came to Springfield as principal of the Converse school, serving there two years. He was then chosen as assistant principal of the Springfield high school and instructor in mathematics, which place he held until 1904. At that time he went to Princeton to assume the principalship of the Princeton township high school, where he served eight years.

In 1910, Mr. Magill was elected to the State Senate and immediately evidenced his leadership in proposing and advancing legislation of a social and educational nature and in taking an active and leading part in all matters of general importance.

With his election to the state senate, Mr. Magill was voted a leave of absence by the board of education of Princeton, in order that he might more fully devote his attention to his duties at Springfield. Again in 1911, he was re-elected principal of the schools of Princeton, and upon his entering the race at the primaries for the United States Senatorship, was again given another leave of absence by the board, that he might carry on his campaign.

In 1912 he resigned the principalship of the Princeton schools, that he might be enabled to devote his attention fully to work which he had planned before the state legislature.

In electing him to the superintendency the Springfield board of education increased the salary attached to the office from \$2,800 to \$5,000.

Idaho Commissioner of Education.

Mr. Edward O. Sisson, professor of education in Reed College, Portland, Ore., has been elected commissioner of education for Idaho at a salary of \$6,000.

In his new position, which was created by the recent legislature, Dr. Sisson will be the executive officer of the state board of education. The latter body has control of all the higher educational institutions of the state, of the public charitable schools and of the general public-school system. It was formed to unify and centralize the administration of the state's schools and to

evolve plans for developing the same along the most economical and efficient lines.

The office of state commissioner does not replace that of state superintendent. The latter is a constitutional office and will in the future be confined largely to the supervision of the elementary schools.

Dr. Sisson has been professor of education of Reed college, Portland, for the last year. Previous to that he was for six years head of the educational department of the University of Washington at Seattle. He is widely known in Spokane and throughout Washington.

He was born at Hateshead, England, in 1869 and has been engaged in educational work all his life, starting as high school principal in Kansas.

Mr. Kern to California.

Mr. O. J. Kern who has made a national reputation through the advanced methods of rural supervision which he has introduced in Winnebago County, Illinois, has recently resigned to become Assistant Professor of Agriculture in the University of California. Mr. Kern will enter upon his new duties about Oct. 1st next, at a salary of \$3,000.00 for the first year.

In his new position, Mr. Kern will spread the gospel of better farm conditions and of better education for the country boys and girls throughout the length and breadth of California. California is entering upon a period of development of her agricultural resources and the State Agricultural College is preparing to assist this development by widening its influence to reach every section of the state. Mr. Kern's work will include instruction in elementary agriculture as part of the regular college course, investigation and inspection of the country schools and lecture work.

Mr. Kern was born on a farm near Mattoon, Ill., Jan. 1, 1861. He attended DePauw University for four years and removed to Winnebago County in 1888. His first teaching position was in a country school in the county. From there he removed to Rockford to accept a position as instructor in the high school. Here he remained seven years, until elected to the county superintendency.

Although his term of office does not expire until December 1, 1914, he will leave the state shortly to become closer acquainted with his new duties.



MR. HUGH S. MAGILL, JR.,
Superintendent of Schools Elect.
Springfield, Ill.

AMERICAN STEEL SANITARY DESKS

Built of Our **SANITARY TRIANGULAR STEEL**

Trade Mark

Electrically Welded. Warranted Unbreakable



**Adjustable
Desk and Chair**

THE Adjustable types of American Steel Sanitary Desks include the Adjustable Desk with separate Adjustable Chair (as shown); Commercial School Desk; and Automatic Adjustable Desk.

250,000 IN USE

These Cities (Among Many Others) Are Using American Steel Sanitary Desks

Chicago, Ill.	Tampa, Fla.	Richmond, Va.
St. Louis, Mo.	Portland, Ore.	Lexington, Ky.
Grand Rapids, Mich.	Chelsea, Mass.	Eau Claire, Wis.
Cincinnati, Ohio	Lincoln, Neb.	Dallas, Tex.
Birmingham, Ala.	Rockford, Ill.	Kansas City, Kan.
Philadelphia, Pa.	Danville, Va.	Sioux City, Iowa
New Orleans, La.	Ottawa, Kan.	Raleigh, W. Va.
Muskogee, Okla.	San Antonio, Texas	Providence, R. I.
Superior, Wis.	Springfield, Mass.	Augusta, Ga.
Austin, Texas	Los Angeles, Cal.	Ames, Iowa
Duluth, Minn.	Johnson City, Tenn.	Greeley, Colo.
Memphis, Tenn.	Spokane, Wash.	Fort Wayne, Ind.
San Francisco, Cal.	Nashville, Tenn.	Stockton, Cal.
Denver, Colo.	New Orleans, La.	Leavenworth, Kan.
Aberdeen, S. D.	Rock Hill, S. C.	Newark, N. J.
Danbury, Conn.	Salt Lake City, Utah	Charleston, W. Va.
	Wilmington, Del.	Albany, N. Y.

ALSO SCHOOLS IN ARGENTINE, CHILE, PERU, COLUMBIA, ECUADOR (SOUTH AMERICA) MEXICO, WEST INDIES, EUROPE, ASIA, AFRICA



**Stationary
Automatic Desk**

STATIONARY types include: Automatic Stationary (as shown); and Single Pedestal Combination Desk and Chair. Also Tablet Arm Chairs, Recitation Seats, Study Desks and Assembly Chairs.

Write today for Catalog "A8" and "School Equipment Review"

New York
Boston

American Seating Company

Philadelphia
Pittsburgh

218 S. Wabash Ave., Chicago

Differentiated Courses in Grades.

During the past school year the pupils in the upper grades of one of the Buffalo schools were given an opportunity to choose one of three courses of study. Next year another school will follow the same plan. This is in line with the views of the state educational authorities and as tried out in Buffalo has worked very satisfactorily. The first course of the three is the old line course which has been followed for years. The second gives a thorough ground work in business arithmetic, typewriting and stenography, and other subjects which a boy or girl should carry into the workaday world. The third course is the industrial, which is intended to give a boy practical knowledge of the operation of shops or industrial plants, and half of the school day will be spent there.

A School Garden Project.

Indianapolis, Ind. The school board has approved a plan submitted by Supt. J. G. Collicott for the use of three acres of the land belonging to the technical high school as a school garden. It is proposed to run a summer school devoted to applied science in connection with it.

At the present time seventy-five pupils from the high school have signified their intention of enrolling in the school and about the same number from the grades will take the work.

The course will include a study of animals and insects of a beneficial or harmful character together with some laboratory work. The greater portion of the course will consist of outdoor work. Credit will be given for completed tasks.

New Rules for Dubuque.

The board of education of Dubuque, Ia., has recently thoroughly revised its rules and regulations, and in doing so has made some important and progressive changes.

The most radical step, perhaps, is that which reduces the number of committees of the board from seven to four—committees on education, buildings and grounds, finance, and supplies. The committee on education assumes the functions of the previous committees on teachers, teachers' salaries, textbooks, course of study, examination of teachers, etc. Under its direction belong all matters pertaining to the strictly

educational work of the schools. The committee on buildings and grounds has supervision of repairs, improvements and building operations of all kinds, and also of the janitors. Under the control of the committees on supplies and finance fall those matters which are indicated by their names.

The new arrangement makes for simplification and efficiency, and is a distinctly progressive move.

The new rules also make more liberal provision for teachers' absence caused by sickness, or death in the immediate family. Previously teachers were allowed two full days without loss of pay and seven days with a loss of half-pay for these causes. Under the new rules they are allowed three full days without any loss of pay and ten days with loss of only half-pay.

Many other changes of a progressive character are made, and the entire revision is in the interest of a more efficient and economical form of administration.

Newark Schools Praised.

The June issue of the "Newark" the organ of the Newark, N. J., public library is devoted wholly to a symposium upon the local public and private schools. The publication includes articles by the associate superintendents of schools, by Miss Callista Sutphen, and by Rev. J. A. Dillon superintendent of the Catholic Schools.

The publication summarizes on the title page the following achievements of the Newark Schools:

Newark had a school in 1676, ten years after the first settlement.

Newark established its first free public school in 1813, 100 years ago.

Newark had the third public high school in the United States, 1838.

Newark had the first kindergarten conducted as a part of its public schools, 1861.

Newark was the first city in the United States to have summer schools, 1885.

Newark ranks fifth in evening school enrollment and attendance.

Newark is the second city in the United States to have all-year schools.

Michigan to Standardize Schools.

Declaring that every child that attends school is entitled to reasonably decent quarters, State Supt. L. L. Wright of Michigan has sent to the school boards of rural districts a plan for establishing "standard schools." He calls attention in his circular to the fact that the state requires every child between the ages of seven and sixteen to attend school, but the state has no control over the conditions under which the child attends school, and then adds, "Most of the country school buildings are very faulty in matters of heat, light, ventilation and sanitation."

For the "standard school" Superintendent Wright proposes certain specifications, which if complied with by the school board will entitle that school to a metal tablet to be placed over the schoolhouse door, the tablet to bear the words: "Standard School," and a diploma for hanging in the school building which will state that the school has been considered fit to be in the standard school class. Included in the requirements are ample grounds of at least one acre, with some trees and shrubs tastily arranged; good approaches to the schoolhouse; proper sanitation and a suitable place or room for fuel.

A SCHOOLHOUSE ON THE MOVE.

(Concluded from Page 16)

moved in the United States. Its weight is approximately 3,000 tons, making the task of "jacking up" and moving an extremely difficult and delicate operation.

The work which was done by the Sound Construction Company, Seattle, went forward with much care, to prevent every possibility of drops. The actual moving was done on eight steel tracks by means of three donkey engines. All ground in advance of the building was carefully tamped and puddled. The photograph shows the building about to take a quarter turn. A second quarter turn was given to face it correctly in the final location. Up to the date when the picture was taken, July 3, the movers had not cracked a foot of plaster or disturbed a single brick.

The photograph is reproduced by courtesy of the Johnson Service Company, whose apparatus is installed in the building.

BOSTON PENCIL POINTER



Designed for Schools

- sharpens any size and shape of pencil or crayon
- stops cutting automatically when pencil is properly pointed.
- has no adjustments whatsoever.

Never Breaks the Lead

- 5 quick turns sharpens any new pencil—one turn to resharpen.
- Nickel-silver finish, with transparent shaving receptacle.
- Special price to schools.

BOSTON SPECIALTY CORPORATION
261 BROADWAY
NEW YORK.



THERE is a world of difference between School Desks and Haney School Desks. Why don't you give us an opportunity to tell you the difference in construction?

Here is what we will do: We will advise you, co-operate with you and aid you all we can. And then we will tell you something about our particular Furniture and make you some prices which we believe will open your eyes.

We have concentrated on this business a third of a Century. We think we know what to put in and what to leave out of Pupil's Desks, Church and Assembly Seating, Book Cases, Tables, Recitation Seats, Artificial Blackboard and General School Equipment.

We say to you we can save you money on anything you wish to purchase in this line. Let us prove it.

Haney School Furniture Co., Grand Rapids, Michigan

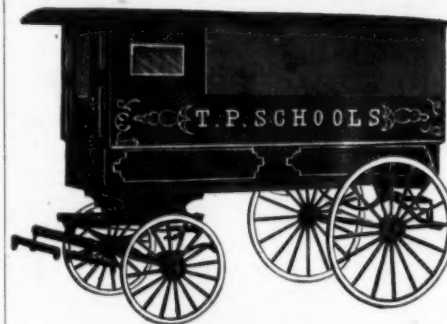


The Peabody School Furniture Co.,

NORTH MANCHESTER, IND.

For prompt service and satisfaction, we solicit your inquiries on

School Desks,
Opera and
Folding Chairs



Olsen School Wagons

Built in Three Sizes

**Sanitary, Durable
and Neat**

Write for Prices and
Freight Rates

C. J. Olsen & Sons
Pittsboro, Ind.

Auditorium Lighting

both in Elementary and High Schools should be indirect, soft and mellow. Therefore "Melo-Glo" fixtures are best. Remember most schools are judged and visited by taxpayers at night only.

Write for our Catalogue on Auditorium Lighting

KANSAS CITY SCENIC CO.

2331-33-35-37 Grand Ave.

KANSAS CITY, MO.



Prang
Stixit

The **PASTE** In
Stickiest Town

Is not like the ordinary white flour paste. It is a combination of paste and glue.

It has the pleasant odor and light color of the finest library paste, but possesses the strength of old-fashioned glue. Put up in pint, quart and gallon containers for school use.

THE PRANG COMPANY
NEW YORK CHICAGO BOSTON
ATLANTA DALLAS

Out of the Day's Work

FORMS OF STANDARDIZING ANNUAL SCHOOL REPORTS.

By Supt. William A. Wheatley, Middletown, Conn.

In the interest of standardizing annual school reports in Connecticut, the writer framed or adapted the seven accompanying forms which

he sent out to superintendents in his state with the suggestion that, if agreeable to them, they follow some or all of these forms in getting out their next annual report. While he knew that these forms could without doubt be improved upon, still he was confident that they were good enough to begin with as a common basis for comparing school systems along the lines of the nativity, parentage, language and distribution by ages and grades of pupils in school, the distribution by grades, ages and causes of pupils who had left school, and the distribution by causes, grades and number of years in school of pupils who failed of promotion.

Form No. 1 shows the relative number of pupils in each of the grades and the four years of the High School who are native born, whose parents are native born, who are foreign born, whose parents are foreign born as well as of those pupils who come from English and from non-English speaking homes. This information gives a first setting to the general problem of education by showing just what obstacles in the form of foreign languages stand in the pupils' path.

Form No. 2 displays graphically what proportion of the pupils throughout an entire school system are under or above normal age or are of normal age. This should show an alert

Distribution of Pupils by Ages and Grades, September, 1911
on annual promotion basis.

(AGE GIVEN IS THAT OF LAST BIRTHDAY BEFORE SEPTEMBER 1, 1911)

AGES	GRADES										HIGH SCHOOL				TOTALS
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	
5															
6															
7															
8															
9															
10															
11															
12															
13															
14															
15															
16															
17															
18															
19															
20															
21															
22															
23															
24															
25															
26															
27															
28															
29															
30															
Above 30															
Total by Grades															
Above Normal Age															
Below Normal Age															

Nativity, Parentage and Language of Pupils, September, 1911

	GRADES										YEARS IN HIGH SCHOOL				TOTALS
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	
Total number of Pupils															
Native born															
Foreign born															
Parents native born															
Parents foreign born															
English speaking															
Non-English speaking															
Other															

NOTE: Columns under High School with the asterisk refer to pupils who entered High School from St. John's Episcopal School, private schools or schools outside of the city. The other columns refer to pupils graduated from the city grammar school.

No. 1. (Shaded) Nativity Record.

No. 2. (Large Card) Distribution by Ages and Grades.

Distribution by Ages and Causes of Pupils who left School
during year Sept. 1911 to June 1912

CAUSES	AGES										TOTALS
	5	6	7	8	9	10	11	12	13	14	
Left the City											
Death											
Engaged or Married											
Returned to Family											
Physically Disabled											
Financial Causes											
Mental Incapacity											
Parental Prohibition											
Indifference											
Went to Work											
Business or Trade School											
Unemployed											
Unknown											
TOTALS											

Distribution by Grades and Causes of Pupils who left School
during year Sept. 1911 to June 1912

CAUSES	GRADES										TOTALS
	1	2	3	4	5	6	7	8	9	10	
Left the City											
Death											
Engaged or Married											
Returned to Family											
Physically Disabled											
Financial Causes											
Mental Incapacity											
Parental Prohibition											
Indifference											
Went to Work											
Business or Trade School											
Unemployed											
Unknown											
TOTALS											

No. 3. (Lower Form) Record of Pupils who have left school by Grades.

No. 4. (Upper Form) By Ages.

SANITARY STEEL SCHOOL FURNITURE



Domestic Science Tables for the pupils and Cabinets for the Teachers. All Steel and White Enameled.



Adjustable Steel Frame Manual Training Benches, with or without Cabinets.



Germinating Beds and Apparatus for Agriculture.



Columbia Sanitary Steel Dictionary Holder




PRINCIPAL



TEACHER



PUPIL



Laboratory Furniture.



Steel Vise for Manual Training Departments.

SaniSteel
Steel Desks for the



COLUMBIA SCHOOL SUPPLY CO. INDIANAPOLIS, IND.

SANITARY STEEL SCHOOL FURNITURE

superintendent where the results of former retardation are to be found so that he may locate and remove the causes.

Forms No. 3 and No. 4 deal with elimination and throw light on the causes of pupils leaving school and indicate in what grades and at what ages this elimination is most prevalent. In other words, this information should make it easy for the live superintendent to locate the school mortality and effect a prevention or a cure for that part of it which is preventable or curable.

Forms No. 5 and No. 6 indicate graphically the proportion of pupils in all grades and through the high school who were promoted or who failed of promotion in June with the number of years they have attended school. This information shows the amount and location of the current retardation and should suggest at once to the proper school official whether or not this vital phase of school life is healthy or moribund.

Form No. 7 supplements Forms No. 5 and No. 6 in showing to what causes should be attributed the non-promotion of pupils grade by grade. These three forms together with Form No. 2 show both the results of former retardation and the causes of current retardation so that its proper control may be effected.

These seven forms are in addition to and are in no way assumed to supplant those commonly used in giving the statistics of enumeration, enrollment and attendance. It is hoped that these seven forms may assist at least in some small way in bringing about a proper standardization of annual school reports for the mutual benefit of all desiring to measure the efficiency of school systems on the same basis of comparison.

Saginaw, Mich. To increase the efficiency of the teachers in the service of the schools, the board of education has recently adopted rules

for rating and promoting teachers below the high schools.

The rules provide that newly employed teachers shall begin at a monthly salary of \$40 and shall be classified in what is to be known as division B, group 1, teachers. At the end of the first and second years they may be promoted to a second and third group, respectively, with increases of \$5.00 per month.

At the end of the third year they may be promoted to what is to be known as division A,

group 4, and shall receive \$55 per month. For the fifth and sixth years of teaching they may be paid \$60 and \$65 per month respectively.

The promotions from group to group are conditioned upon the recommendation of the superintendent and of the committee on teachers. Reports will be made on successful and satisfactory work as determined by such features as ability to teach, professional spirit, attitude toward the school and the children, and desire to excel.

CAUSES	Not Promoted to Grade							Failed to Graduate from Grammar School	Not Promoted to Year of High School					Failed to Graduate from High School
	2	3	4	5	6	7	8		2	3	4	5	6	
Irregular Attendance														
Illness or Physical Defects														
Mental Incapacity														
Inactivity														
Lack of Preparation														
Indifference														
Undesirable														
Two years in Same Grade														

NOTE:—Complete under High School with the statistics of pupils outside the city. The city.

No. of years in school	Promoted to Grade							Graduated from Grammar School	Not Promoted to Grade					Failed to Graduate from Grammar School
	2	3	4	5	6	7	8		2	3	4	5	6	
1														
2														
3														
4														
5														
6														
7														
8														
9														
10														
11														
Over 11														
Percentage														

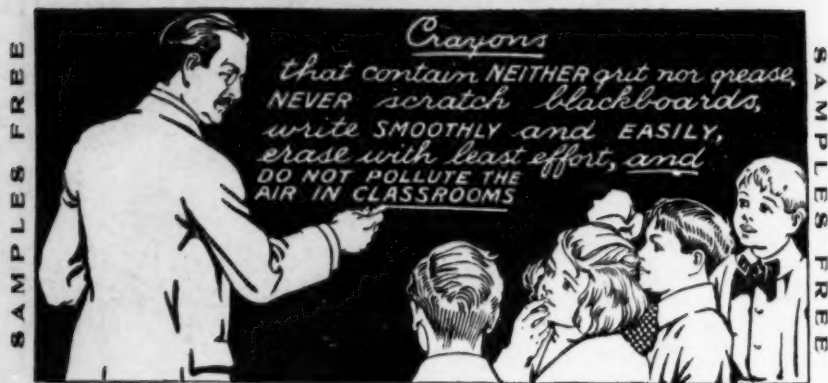
No. of years in school	Promoted to Year of High School					Graduated from High School	Not Promoted to Year of High School					Failed to Graduate from High School
	2	3	4	5	6		2	3	4	5	6	
6												
7												
8												
9												
10												
11												
12												
13												
14												
Over 14												
Percentage												

NOTE:—Complete with the statistics of the pupils who failed to graduate from the High School. The city.

No. 5 (Lower), No. 6 (Middle) Records of Promotions in Grades and High School. No. 7 (Upper) Failures by Grades and Causes.

NATIONAL (Dustless) CRAYONS

For Blackboard Use



NATIONAL CRAYON COMPANY
West Chester, Pa.



Model High School Equipment

Paltridge Metal Stacks

are rapidly becoming
standard in all parts
of the country.

This Model High School
Equipment is possible for
every high school of the
country. Neat, clean,
sanitary, adjustable and
durable.

Write today for Catalog

The Paltridge Metal Equipment Co.

729-30 Monadnock Bldg.

CHICAGO, ILL.

NEW ORLEANS TEACHERS' SALARIES

After working for two weeks and holding sessions almost every night the New Orleans Board of Education has adopted a plan of classifying salaries of teachers on a merit system which is a radical departure from the old method and believed to be one of the best ever devised. In revising the rules and regulations other important changes have been made.

In the classification of teachers and arrangement of salaries there are three classes, known as A, B and C. There is also a supplemental class known as B2, but this is to be only temporary and will eventually be abolished.

Class C shall include all teachers during the probationary period, including their first three years of service.

Class B shall include all regularly appointed teachers who have not qualified for Class A.

Class A shall include those who have completed at least one year of service as a regularly appointed teacher and have earned a rating of "Superior" in efficiency in teaching and have shown an advance in academic and professional scholarship, either through work done in colleges or summer schools during the four years next preceding their application for advancement to Class A, or through an examination held under direction of the Board.

Class B2 shall include all teachers now receiving \$75 per month, by reason of their length of service in the school system and who shall be classed as "good" or above, shall continue to receive \$75 per month. No additions, however, other than these teachers shall be made to this temporary class B2 and when all teachers who may be enrolled in this class shall have terminated their services in the school system or shall have been promoted to class A, or reduced to Class B, the Class B2 shall cease to exist.

The subjects required for promotional examinations for grade teachers shall be—educational psychology, the psychology and pedagogy of three subjects taught in the elementary schools,

and one of the following subjects of college grade: English and American literature, algebra, modern history, physics, chemistry, botany or zoology. For high school teachers the examinations shall consist of the history and principles of secondary education, psychology and pedagogy of the special subject taught by the teacher, adolescent psychology, and the subject matter of the third or fourth year in college in the subject taught by the teacher.

The promotional examination to Class A for all special teachers shall include—educational psychology and pedagogy of the special subject and the subject matter of a complete college course in the special subject taught by the teacher, and the subject matter of a first year's college course in a subject auxiliary to the special subject.

Certificates from colleges or summer schools of recognized standing, showing the successful completion of not less than 90 class hours in any of the subjects named for examination below, may be accepted in lieu of an examination in such subject. Provided, that teachers submitting certificates showing the completion of 12 courses in summer schools or colleges of recognized standing before October 1, 1914 may have such certificates accepted in lieu of examinations to Class A.

Teachers in elementary schools having received a Bachelor's degree from a college of recognized standing during the four years next preceding their application for advancement to Class A will be excused from promotional examinations, provided, that not less than 300 class hours were devoted in their college course to psychology and pedagogical subjects.

Women teachers in the high schools who have received a bachelor's degree from a college of standing during the four years next preceding their application for advancement to Class A, will be excused from examination to Class A, provided the subjects included in the promotional

Absolutely Reliable

Safeguard Against
Panic Disasters

Approved by
New York Board of Fire
Underwriters
City of New York Bureau
of Buildings

Applied on thousands
of buildings in more
than 500 cities in the
U. S. A. and Canada

Send for Catalog
No. 10C

Vonnegut Hardware Co.

General Distributors

Indianapolis, Ind., U. S. A.



SAFE EXIT IS A UNIVERSAL DEMAND

**Von Duprin Self-Releasing
Fire Exit Latch**

"MADE ON HONOR"

CAN YOU AFFORD TO BE WITHOUT THEM?

**HARD
HITTERS**

To get a hammer that
will last a lifetime, that
never chips or breaks—that never works loose or flies off the
the handle—that drives straight and true—you must ask for a
Keen Kutter Hammer.

KEEN KUTTER
Tools and Cutlery

are as carefully made, tempered and tested as the finest surgical instruments. The name Keen Kutter covers Carpenter Tools of all kinds. Tools for Garden and Farm. Also a full line of Scissors and Shears, Pocket-knives and Table Cutlery. If not at your dealer's, write us.

SIMMONS HARDWARE COMPANY (Inc.). St. Louis and New York, U. S. A.

examination for high school teachers have been pursued by them in their college course.

Male teachers in the high schools who have received a Master's degree from a university of recognized standing during four years next preceding their application for advancement to Class A may be excused from examination provided a course of not less than 90 class hours in the psychology and pedagogy of the subject taught by the teacher was successfully completed among the requirements for the Master's degree.

Applications for promotional examination shall be made in writing and such examinations shall be held annually between August 15 and September 15, on a date to be fixed by the Superintendent.

The schedule for payment of salaries of the different grades is made up as follows:

Class C teachers, not rated as high as good the first year shall receive only \$50 per month the second year, and \$55 the third year. If ranked as "good" or above in the second year shall receive \$55, and \$60 per month the third year. Provided, that Class C teachers having had two years' experience elsewhere may receive not more than \$55 per month the first year, and not more than \$60 the second year and third year. Teachers with three or more years' experience elsewhere may receive not more than \$60 during the year of their probationary teaching.

Class B teachers shall receive \$60 the first year; \$65 the second and third years, and \$70 for the fourth year.

Class A teachers shall receive \$75 per month the first year; and if they attain a rating of "Superior" shall receive \$80 per month the second, third and fourth years; \$85 the fifth, sixth and seventh years, and \$90 the eighth and subsequent years.

Class A teachers failing to get a rating of "Superior" shall not be advanced the following year, and those who fall below the rating of "good" shall be assigned to Class B.

Class C female teachers in the high schools shall receive \$65 the first year. If rated "good" or above shall receive \$70 the second year, and



“Wolff Quality”

Bubbling Fountains and Fixtures are just what you want for your school children. Think of a fountain that is sanitary, fool-proof, and drinkable, and you will always specify “WOLFF.”

Write today for our School Bubbler Catalog.

L. Wolff Manufacturing Co.

BRANCHES

Denver, Colorado
Trenton, New Jersey
Omaha, Nebraska
Minneapolis, Minn.
Dallas, Texas
Rochester, New York

MANUFACTURERS OF

PLUMBING GOODS EXCLUSIVELY

The one line that's complete—completely made by one

GENERAL OFFICES

601-627 West Lake St., Chicago

SHOWROOMS

111 North Dearborn St., Chicago

BRANCH OFFICES

St. Louis, Missouri
San Francisco, California
Washington, D. C.
Cincinnati, Ohio
Cleveland, Ohio
Kansas City, Missouri



if still rated “good,” shall receive \$75 the third year. Provided, that teachers with two or more years’ successful teaching experience elsewhere may be paid in excess of the above schedules but not more than \$100 per month during the probationary period.

Class B teachers in the high school shall receive \$80 per month the first and second years, \$90 the third and fourth years, and \$100 the fifth and subsequent years. Class A teachers shall receive, in the high schools \$110 the first and second years, and thereafter, those attaining a rating of “superior” shall receive \$120 per month. Should any teacher fail to receive a rating of good or above she shall be assigned to Class B.

Male teachers in the high schools of Class C shall receive \$100 per month the first year. If rated good or above shall receive \$110 the second year, and if still so rated, \$120 the third year. Class C teachers not rated good or above shall receive but \$100 the second year and \$110 the third year. Provided that teachers with two or more years of experience elsewhere may be paid in excess of this schedule but not more than \$160 per month.

Class B male teachers in the high school shall receive \$130 the first year, \$135 the second, \$140 the third, \$145 the fourth, \$150 the fifth and sixth, and \$170 the seventh and subsequent years. Class A teachers shall receive \$170 the first and second years and \$180 thereafter so long as they maintain a rating of superior.

The salaries of principals of the elementary schools will be graded according to the number of pupils attending at the previous session of the school. The rates will be: Not more than 150 pupils \$80 to \$100 per month; for 150 to 350 pupils \$100 to \$125; for 350 to 550 pupils, \$125 to \$135; more than 550 pupils, \$135 to \$150.

Salaries of vice-principals in the elementary schools shall remain as heretofore at \$5 per month in addition to their grade salary.

Superintendent Gwinn stated that the new schedule of salaries will permit a teacher in an elementary school to receive a maximum salary of \$90 per month while heretofore \$75 per month only was possible. The maximum for elementary school principals is also raised from \$135 to \$150.



School Trade Notes

Issues Catalogue.

The American Seating Co., has recently issued the 1913 edition of its illustrated catalog of school apparatus and supplies No. A 38. The “American” line of school furniture and apparatus has been made up to meet the standards and requirements of the modern courses of study in the most advanced public schools. A single glance at the new catalog will convince any schoolman as to the completeness and the quality of the articles presented.

A copy of the catalog will be sent to any school man who addresses the firm at 218 S. Wabash Ave., Chicago, Ill.

Natural Science Specimens.

Recent advances in the teaching of geography, elementary science and nature study, chemistry and industrial subjects make imperative collections of raw and manufactured materials by which these studies can be made practical, concrete and interesting. The day has long passed when the teacher can speak of such a topic as silk or its production without exhibiting to her class specimens of the silk worm, in its various stages of growth and development, raw silk and silk thread in its several forms, and in various kinds of cloth. Energetic teachers in the past have been obliged to seek material for such illustrative purposes from various sources not easily accessible.

Their requirements have recently led to the formation of what is known as the Natural Science Collections prepared by the Natural Science Co., of Carthage, Mo. This firm prepares model collections of vegetable, mineral and animal products for elementary and high schools, for colleges, for museums, and for commercial laboratories, factories and stores. The collections are made on a strictly scientific basis with the assistance of scientific and commercial experts.

For elementary and high-school use the collection of forty-two subjects, embracing a total of nearly one thousand distinct specimens can be heartily commended. Each subject is accompanied with a complete scientific explanation of the nature of the raw material and of the important processes in its manufacture and use. Each separate specimen is thoroughly described.

The latest brochure of the Natural Science Co., describing its various cabinets and special as well as general collections may be had by addressing the firm at Carthage, Mo.

Waynesboro High School.

The new Waynesboro high school illustrated on another page of this issue has been equipped with furniture and apparatus of the most modern type.

The administrative equipment includes automatic clock and bell program system, with a Frick master clock and twenty-eight secondary dials and signals manufactured by the Landis Engineering Company.

The classroom equipment consists of pupils’ desks manufactured by the Cleveland Seating Company and R. R. Johnson’s Window Shade Adjustors. The auditorium is seated with opera chairs made by the American Seating Co., Chicago.

The laboratories for chemistry and physics have special experiment tables of Kewaunee design manufactured by the Kewaunee Mfg. Co.

The heating and ventilating system is “Columbus” make, equipped with Johnson automatic temperature control. The sanitary equipment includes sanitary flushing closets and spray urinals, made by D. A. Ebinger & Co., and bubbler drinking fountains.

Row, Peterson & Company of Chicago have recently established an eastern branch, including offices and depository, at 30 Irving Place, New York City. Mr. F. B. Pelton has been selected as manager of the branch to control the firm’s growing patronage in the New England and Middle Atlantic states. Mr. Pelton is a bookman of long experience and was for several years secretary and treasurer of Newson & Company.

WHEN IT'S 10° BELOW ZERO



your pupils will want water all the same.

The Murdock Bubble-Font

is the only obtainable Drinking Fountain that *will not freeze.*

Every Doctor will tell you "The place for School Drinking Fountains is in the yard."

Supply your school yard with a Fountain that works twelve (12) months in the year and not only May and June — September and October.

WRITE TODAY FOR BOOKLET

THE MURDOCK MFG. & SUPPLY CO.
CINCINNATI, OHIO

Over \$1,000,000 is spent for printed matter in the United States every working day. Printing is sixth in all America's industries. The rewards for the successful printer are enormous. Why don't you make up your mind now to

BE A PRINTER

Get posted on the latest improvements in printing methods and appliances. Write now for full information to

BARNHART BROS. & SPINDLER

KANSAS CITY
ST. LOUIS
ST. PAUL
OMAHA

168-172 W. Monroe Street
CHICAGO
NEW YORK

WASHINGTON
ATLANTA
SEATTLE
DALLAS

The Best of Everything the Printer Needs

EXTENDED HIGH-SCHOOL SESSION.

An interesting example of the "extended session" plan for high schools is afforded by the Norristown high school which discontinued its short day in February last.

The school opens at 8:45 and closes at 3:30. There is an intermission of thirty minutes at 12 o'clock. The periods are one hour in length. The last half of the period is devoted to recitation. The first half of the period is devoted to study under the direction of the teacher who has charge of the recitation. During this portion of the period, the teacher does not use the time for marking papers or to prepare herself to teach the lesson. She devotes the entire time to the quiet supervision and direction of the study by the pupils.

When the class has a laboratory period, a typewriting period, a manual training period, a drawing period, or a domestic art period, the entire hour is devoted to the particular type of work.

Pupils who carry the minimum requirements have one full period for study each day in addition to the half-hour preparation prior to each lesson. Twice a week they have two hours in addition to the half-hour preparation prior to each lesson. Pupils who are strong enough to carry an additional subject have a full hour for study twice a week only.

Pupils are allowed to carry an extra subject only by the request of the parents and the consent of the principal and superintendent.

Pupils who cannot gain a good standing in their lessons by using all the available time for study in school are urged to supplement school periods for study by study at home until a satisfactory standing is attained.

The benefits derived from the above plan are the following:

1. An opportunity to teach the student how to study.
2. It places the work of the school where it ought to be, under the direction of the person particularly fitted, the teacher, to direct it. The work is done in the place particularly fitted for study, the school plant.
3. One-half hour for study followed by one-

half hour for recitation avoids fatigue and at the same time places the student under the teacher's influence one hour instead of forty-five minutes.

4. The work is done in daytime.
5. The pupil gains time. Much time has been wasted in study because the pupil frequently studies under conditions that are not favorable. He frequently does not know how to approach his work and becomes discouraged and loses time.
6. It avoids the fatigue that comes from night study.
7. It reduces the amount of eye-strain due to night study.
8. It insures some preparation by every pupil. This makes the teaching more effective. When pupils are expected to prepare their lessons at home, many fail to do so.
9. The evening belongs to the home, not to the school. It is the time for the family hour, for social culture, and for legitimate entertainment. It is the time for relaxation and the time when the mind should be diverted from the business of the day. It means greater companionship of parents and children during the High School period.
10. This plan recognizes the value of a rhythmic life: a time for work; a time for relaxation and recreation; a time for sleep.

HIGH-SCHOOL FRATERNITIES.

The question of secret societies received the attention of the school board of Haverhill, Mass., at a recent meeting and it was announced that each of the societies in the high school was willing to accept a member of the faculty and to make their society a school affair. The board took no definite action on the question.

The Chicago board of education has passed amendments to the rules regarding Greek-letter fraternities. The rules provide that high-school students who are suspended for membership in these societies, even if reinstated, shall be barred from receiving any class honor. Teachers who knowingly permit violations of the rule regarding secret societies shall be removed from their positions.

The new rule relating to the students was passed following the discovery that pupils who were suspended were willing to suffer punishment when it was possible to be reinstated. It was also found that the other students found it possible to join the societies on the supposition that they too could be reinstated. The new rule is designed to prevent this by making all suspended pupils ineligible for class honors.

Twenty-four Greek letter chapters of the fraternity at the Ohio State University have banded themselves together for the purpose of compelling obedience to the state law prohibiting secret societies in high schools.

The members of the Pan-Hellenic fraternity association have ruled that no university chapter shall initiate any person who has been initiated in a high-school fraternity provided he has not severed his connection before the close of May, 1913.

The state legislature of Ohio passed a law in 1908 but little or no attention has been paid to it and the secret organizations have continued to flourish.

Fall River, Mass. The school committee has ruled that no pupil in the public schools shall be a member of any fraternity, sorority or secret society existing wholly or in part within the school system, or whose activities have an injurious effect upon the discipline or scholarship. Any pupil who is a member of such an organization shall forthwith be suspended, and after three days' notice if the said pupil fails to relinquish membership, he or she shall be expelled.

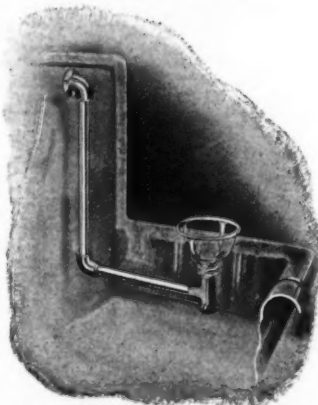
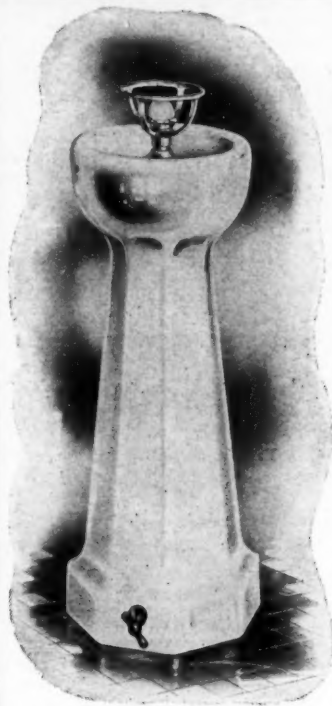
COMING CONVENTIONS.

Sept. 1-6. Illinois Country Teachers' Association at De Kalb, Ill. Lena M. French, Mar-selles, Ill., secy.

Sept. 22-26. Illuminating Engineering Society Convention at Pittsburgh, Pa. M. C. Rupinski, New York, secy.

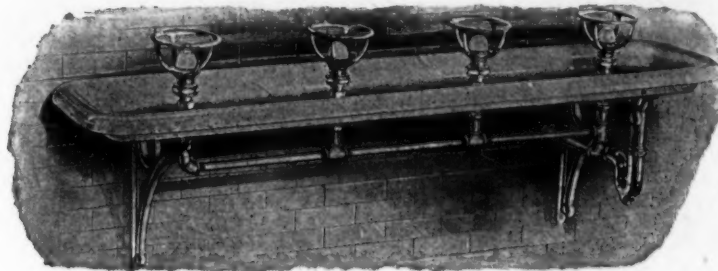
Oct. 19-25. National Society for the Promotion of Industrial Education at Grand Rapids. C. A. Prosser, New York City, secy.

Oct. 30-31. Maine Teachers' Association at Bangor, Maine. H. A. Allen, Augusta, secy.



Here's Your Choice of Fountains

A Fountain for Every Necessity

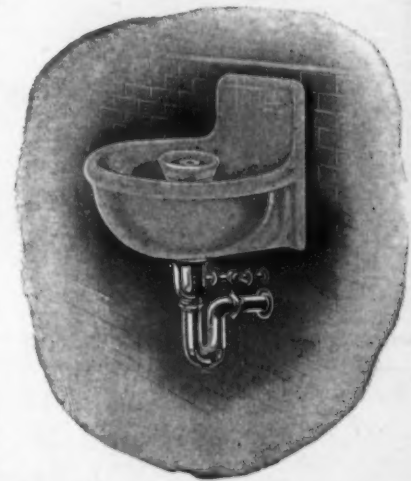


We can supply every drinking fountain used, including heads, brackets and every variety of fountains.

If you don't see what you want, write to our nearest sales office

BRANCHES:
SAN FRANCISCO, CAL.
LOS ANGELES, CAL.
PUEBLO, COLO.
SALT LAKE CITY, UTAH
MEMPHIS, TENN.
HOUSTON, TEX.

N. O. NELSON MFG. CO.
Edwardsville, Ill. St. Louis, Mo.



TEACHERS' PENSION LEGISLATION IN MASSACHUSETTS.

(Concluded from Page 14)

to old age and disability due to accident and disease are two separate propositions. To deal with them in one measure is inviting guess work legislation that jeopardizes the whole plan. It is to be hoped that funds from some source will soon be available to make an investigation into the subject of the occupational risk of teaching. Sufficient data can easily be obtained in this connection upon which an actuary could determine a premium rate. This would probably be less than the rates now charged by commercial companies for similar insurance.

Doubtless the question of pensions and insurance for teachers will never be settled until provisions are made to insure them against the following risks of life: old age, accidents, ill health. The teachers of Massachusetts feel that they have made an auspicious beginning, and have a thoroughly sound basis upon which to proceed.

TRADE SCHOOLS IN THE PUBLIC SCHOOL SYSTEM.

(Concluded from Page 8)

plumbing, painting and decorating, paper hanging, sheet metal working and others will be offered. The school will also have a continuation department for all trades in the city covering 145 different industries, not to mention the smaller hand-workers' occupations. Extension work will also be offered for girls engaged in office, commercial or factory employment, pointing toward increased efficiency in home-making, while special courses will be offered on a unit basis for persons already engaged as homemakers and housewives, where they can learn to make children's clothing only, plain sewing only, pastry, cooking, canning or pre-

serving, or such other specialized lines for which a demand may arise.

The whole purpose of the movements in New Haven, Connecticut, which has already received the endorsements of labor leaders, unions, manufacturers, master employers, businessmen, and educational leaders, is to establish a large central institution of industry in which anybody at any time may receive instruction in any occupation he may desire.

SEEING SALT LAKE CITY.

(Concluded from Page 18)

sents all the extremes of human life. Please note the saloon, the church, the school and the hotel. The saloon typifies degradation; the church, salvation; the school, education; and the hotel, starvation. Pretty good—hey!

We are now passing to the right the home of the famous brewer who made Milwaukee jealous. They say that:

A few drops of his beer,
Brewed with pure hops and rice,
Will make all you teachers,
See Salt Lake City twice.

Just to the left of the car you will notice a small red cottage which covers more acres than any other house in Salt Lake City. This house is made of red brick and has a bay window just to the front. It is the home of John and Mary Acres, who have two children or four Acres in all.

We are now passing on the left the home of John Henry Brown who last year buried the largest number of wives of any man in the Mormon church. The strange and unfortunate part about it all is the fact that Mr. Brown is now only thirty-two years of age and is very thankful for the past. Don't be shocked, lady. Mr. Brown is only a local undertaker.

And now, Ladies and Gentlemen, we are coming to the most touching part of this trip. Pay the cashier as you step from the car.

SUMMER SCHOOLS.

Chicago, Ill. Thirty-one vacation schools for the primary grades opened on July 7th with an attendance of 14,000. The term is six weeks, and the courses are for the most part branches of manual training, such as sewing, cooking, physical education, games, singing, housekeeping, art and nature. Mr. F. E. Smith, assistant superintendent of schools is in charge.

Dubuque, Ia. As the direct result of Superintendent Harris's recommendation, two vacation schools are in operation this summer, continuing four weeks. They are open mornings only, from 9 to 12, and are designed to serve two classes of children: First, those who failed of promotion, or are weak in some particular subject, and need special academic instruction; second, those who desire pleasant yet profitable recreation for a portion of the day. The session is divided into three periods of approximately an hour each, one for study, one for play and games, and a third for hand and construction work. A special instructor is provided for each type of activity, and as a natural result the schools are accomplishing something definite, and meeting a real need. They are being largely attended and have met a most favorable response from the people.

Ely, Minn. The board of education has opened a six weeks' summer school. A number of the high-school students are taking advantage of the classes in order to secure additional credits for the coming year.


Des Moines, Ia. Pupils of the summer manual training classes are to be given practical work in furniture repairing. The boys are allowed to bring broken furniture to the school shops where they will be reconstructed into usable articles.

Meriden, Conn. A summer school for delinquent pupils has been established for the summer months. The benefits last year were so marked that an enlargement of the work has been planned for this year.



"U. S."

Pat. Dec. 19, '06
Pat. Jan. 19, '06



"SUPERIOR"

Pat. Nov. 14, '11

These wells will satisfy your desires, especially the "U. S." which fits holes of different sizes perfectly.

NON-EVAPORATING and DUSTPROOF are a few of the many advantages of our goods. Get samples and prices and be convinced. No obligation in accepting free samples.

WE ARE THE ORIGINATORS OF PRESSED STEEL INK WELLS AND ACORN SHAPE BOTTLES.

Order through your dealer or direct from us.

U. S. Inkwell Co. Inc.
Des Moines, Iowa



ALL STEEL
PATENTED

LUGLESS
GLASSES

That "Tannewitz"
Flush Top All-Steel Inkwell

5 years on the market. 2,000,000 in use. Best for school desks because unbreakable, cannot be removed from the desk and will not push thru the hole. Features are patented and used by us exclusively. Avoid imitations. Look for the name "Tannewitz." Sample free.

The Tannewitz Works
GRAND RAPIDS, MICH.

FIREPROOF SCHOOLS

John T. Simpson
Architect and Engineer

1224 Essex Building
NEWARK, N. J.

SQUIRES INKWELL COMPANY



Squires No. 8 Inkwell

Squires No. 2 Inkwell

Undoubtedly our flush inkwells are the best on the market and more extensively used than any others. Our No. 8 fits the same size hole as does our No. 3, but holds about 50% more ink and is generally preferred on that account. Is finished in bronze but will nickle when so ordered.

Our No. 2 sliding lid inkwell has a wide flange and will cover up or fit any hole from 1 1/4 to 2 1/4 inches in diameter. It was designed especially to refit old desks. This inkwell extends less than 1/2 of an inch above the surface of the desk, is nearly as good in this respect as a flush inkwell. The glass sets inside the iron holder.

See last month's journal for other styles. Write for illustrated circular and prices.

SQUIRES INKWELL CO., - - - **Pittsburgh, Pa.**



(Patented)

The Jacobus Pneumatic Ink-Well

It prevents evaporation—the ink never thickens. It requires filling but twice a year. It prevents the pen from taking too much ink, to smear the fingers, or to drop on paper, desk or floor.

IT GATHERS NO DUST, IS NOISELESS, FLUSH WITH TOP OF DESK, NOT EASILY BROKEN, AND IS THE MOST SATISFACTORY AND ECONOMICAL WELL EVER MADE. In purchasing new school desks make the condition that they shall be supplied with

THE JACOBUS PNEUMATIC INK-WELL

Send for Circular and Prices

JACOBUS PNEUMATIC INK-WELL CO.

16 Exchange Place, N. Y. City

BOOKS

Orders from Boards of Education, Superintendents, and Principals solicited. Our facilities for promptly and completely filling orders for all kinds of books is unexcelled. Our location in the publishing center of the country enables us to render better service than any other wholesale dealer. Send for a "School Book Catalogue" and "Library Catalogue." Quotations and Bids on Contracts Furnished Promptly.

THE BAKER & TAYLOR CO. WHOLESALE DEALERS IN BOOKS
33-37 East 17th St., New York City, N. Y.

SCHOOL ENGINEERING: ITS NECESSITY.

(Concluded from Page 16)

of a properly designed mechanical system. My experiments were made for the purpose of determining how much latitude could be allowed the teachers in regard to opening and closing the windows when the mechanical system is in operation, what the additional fuel cost would be, and what effect this would have on the occupants of the room.

It is impossible for me to present, in any manner that would be intelligent to the layman, the results of my investigation in the form of statistics. However, I have determined absolutely, to my own satisfaction, that a ventilating system can be designed, without deviating a particle from the accepted standard practice, so that the opening or closing of the windows in the classroom will not have any effect upon the operation of the system, will not increase the cost of operation, and will not affect the conditions in other rooms in the same building on the same system.

In the design of a mechanical ventilating system the circulation of air is brought about normally by a difference in pressure between the inlet and the outlet openings. This creates more or less of a plenum chamber of the room. In order to control the circulation of air in the classroom, it is necessary that the difference in pressure between the inlet and outlet should be sufficient to maintain a constant pressure in the classroom. This pressure, however, is not high as it is generally considered to be. In fact, it is so slight, in a properly designed system, that it could not be indicated by any ordinary instruments used for that purpose. A peculiarity of the physics of air and the design

of the fans used in the ventilating systems is that when the pressure is decreased the volume of air is increased and the motive power required to drive the fan is increased. However, this pressure can be maintained upon the fan by other means than making a plenum of the classroom, and in such a manner that opening of windows will not affect the operation of the system in the other rooms, nor will it allow a greater volume of air to enter this particular room than was intended.

Inasmuch as the amount of fuel required to heat the air varies in proportion to the volume of air, it would follow that opening the windows under these conditions would not increase the fuel consumption provided the temperature of the classroom was not allowed to drop.

THE NEW ORDER IN SACRAMENTO.

(Concluded from Page 18)

found that one of the big buildings of the city was constructed upon a public park site. The question of removal has been discussed back and forth between the old board of education and the city board of trustees many years without results. By reason of the personnel of the school board being that of the city commission, the question was settled at one meeting, when it came up under the new form of city government. It was quickly decided that the school department should build upon its own land.

High School Reforms.

The city board of education and the city commission is also the high-school board of management in Sacramento, and one of the early matters seriously taken up was the proposed construction of a larger and better high-school building for the city, the fine building constructed five years ago having been greatly

out-grown. The group idea was followed, and the first step was the purchase of eleven acres in an outer residence portion of the city which is almost the geographical center. The first unit of a fine building will soon be erected there and eventually the old high-school building will be abandoned to the common school system. The high-school pupils will then have manual training, laboratory, domestic science, and other necessary departments within a limited area, yet entirely separate.

There seems to be no question about the educational value of combining the school board with the city's governing body. Sacramento began one year ago with the most forward charter in the United States and has proven her judgment on the question of school management.

What will other cities do?

Jacksonville, Ill.—Superintendent W. A. Furr of the Jacksonville schools has been appointed superintendent of the model school of the state normal school at Carbondale, Ill., succeeding C. E. Elliott.

The Memphis, Tenn., school board has elected Mr. N. M. Williams as superintendent of schools to succeed Mr. L. E. Wolfe. Mr. Williams is a Memphian and has been principal of the Central high school for many years.

Piqua, O. A summer school has been established for children who have failed in one or two branches of school work during the year. The school offers subjects from the fourth to the eighth grade and studies common to the grades are found in the course. The length of the course is six weeks and sessions are held in the morning.

Martinsburg, W. Va.—The school board has increased the salaries of grade principals from \$90 to \$100 and has raised all of the teachers by \$5 per month.

Here's a Corridor Fountain



Don't waste the time of pupils
Put a "Corridor" Fountain on every floor
Unsurpassed for Elementary and High Schools

Write Today for Catalog

Rundle - Spence Mfg. Co.
MILWAUKEE, WIS.

Mahoney Sanitary Drinking Fountains

SELF-REGULATING



The only Fountain now made that has a *dependable* and *successful regulator*, easily accessible filter and steady, non-squirting slant stream.

More Mahoneys sold than of all other makes combined.
Try one at our expense.

MAHONEY FOUNTAIN COMPANY
Portland, Maine
Write for Catalog and Prices



No Chance
For Contagion
Here

Every swallow of water is
clean, cool and refreshing

All bubble cups are
law-proof, but very
few are germ-proof.
The Clow "Madden Patent"
Drinking Cups are both

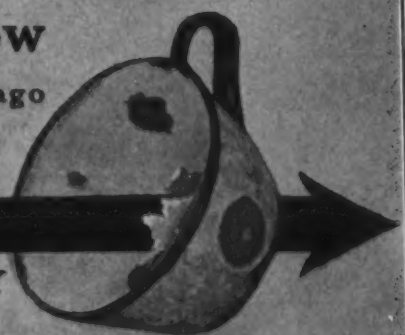
*Send for Clow Bubble Cup
Fountain Catalogue*

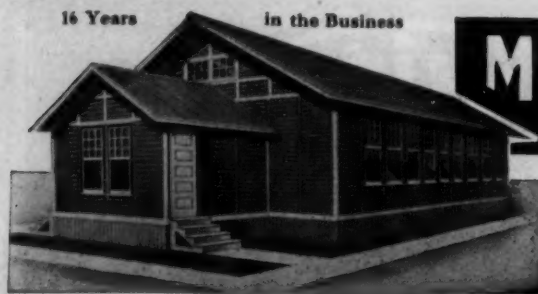


**James B. Clow
& Sons**—Chicago

THE DEATH CUP

THROW IT AWAY





16 Years

in the Business

M&M PORTABLE READY-BUILT BUILDINGS

Complete Ready To Set On The Foundation

Our rapidly growing cities and towns with restricted school revenues find it difficult to build new school houses fast enough to keep up with the demand made by the increase in population. ON SHORT NOTICE and at a VERY SMALL COST, we are furnishing many of the different towns and cities in the United States with our PORTABLE READY BUILT SCHOOL HOUSES with seating capacity 50 to 250.

When shipped from our factory, they are ready built and complete, ready to set on the foundation. No carpenter work of any kind to be done to them as every piece is finished and fitted. We send a printed illustrated instruction sheet for erecting the school houses and attached to same is a floor plan on which all of the parts are numbered and those in the packages numbered to correspond with those shown on the floor plan. When erected, they are as strong and substantial in every way as if built by a local carpenter, day work. They are thoroughly ventilated and all of the windows arranged so as to give perfect light. WE GUARANTEE ENTIRE SATISFACTION.

We will be pleased to furnish names of the different towns and cities now using them. Write and let us send you a blue print and full detailed information.

MERSON & MORLEY CO., No. 1 Main St., Saginaw, Mich.



IF YOU NEED PORTABLE SCHOOL BUILDINGS WHY NOT GET THE BEST?

OUR school houses are in use by School Boards in twenty-one States and Territories. They have double walls, thoroughly insulated, are well ventilated, dry, warm and sanitary. Are SECTIONAL and PORTABLE: Can furnish record and locations of several that have been moved and re-erected seven and eight times each. Any size: Open air and two rooms when desired.

SEND FOR OUR PLANS AND PRICES

AMERICAN PORTABLE HOUSE CO.

3081 Arcade Building

SEATTLE, WASH.



CHARTS

McConnell's A. B. C. Primary Reading Chart	\$4.50
McConnell's Primary Reading Chart	6.00
McConnell's Primary Arithmetic Chart	6.00
McConnell's Language Chart	6.00
McConnell's Complete Chart	7.50
Jameson's Anatomical Plates	10.00
Evans' Arithmetical Series	6.00
Wilkinson New Agricultural Series	12.50

McConnell School Supply Co.

4430 MARKET STREET

PHILADELPHIA, PA.

Do you want to see the best things for every kind of school equipment? If so, call on or address the

Permanent Educational Exhibit Company

70 Fifth Ave. (Cor. 13th Street), New York City

This Exhibit Company is something new in this country in the educational realm and meets a great demand on the part of teachers and manufacturers of school supplies.



Cornell Sectional Buildings

Complete Painted Ready to Set Up

Garages, Stores, Churches, Schoolhouses, Playhouses, Studios, Cottages, etc. Built in sections, convenient for handling and are quickly and easily erected simply by bolting sections together. Skilled labor is not necessary to set them up, as all sections are numbered and everything fits. Built of first class material in the largest and best portable house factory in America. Buildings are substantial and as durable as if built on the ground by local contractors. Are handsomer and COST MUCH LESS. We build houses to meet every requirement. We pay freight. Art catalog by mail on receipt of 4c. stamps.

Wyckoff Lumber & Mfg. Co., 443 Lehigh St., Ithaca, N. Y.



ALABAMA.

Gadsden—The erection of a parish school in connection with St. James Catholic Church will begin soon. Father O. P. Stahl, pastor.

Birmingham—Board of education rejected all bids to erect nine frame school buildings and will readvertise for bids. John L. Parker, pres.

Demopolis—City will vote on August 4 on \$20,000 bond issue to erect school building.

Florala—Archit. Wm. Drago, New Orleans, La., has plan in progress for a high school in Covington county.

ARIZONA.

Phoenix—Bids received June 27 for alteration. Messer & Creighton, Archts.; Eugene Brady O'Neill, pres., high school board of trustees.

Mesa—Archts. Lecher & Kibbey, Phoenix, have plans in progress for a 1-story school for Alma District, near Mesa. Cost, \$16,000.

ARKANSAS.

Benton—Archit. Clyde A. Farrell, Little Rock, has plans for high school. Cost, \$15,000.

Lowell—New school will be built.

Dermott—Bids received July 1 for additions to the Dermott high school and for the erection of a negro school. Chas. L. Thompson, Archit., Little Rock; E. E. Barlow, pres., school board.

Ft. Smith—Bids received July 19 for the erection of a school building, school Dist. No. 22.

CALIFORNIA.

Fullerton—The school board rejected bids for a 2-story school. Tuttle & Hopkins, Archts., Los Angeles.

Glendale—A special election held July 22 to vote on issuing \$100,000 of bonds for school buildings. Address clerk school board.

Tropic—A special election held July 23 to vote on issuing \$20,000 of bonds for a school. Address clerk, school board.

Merced—Archit. Wm. E. Bedesen has plans for new school. Cost, \$9,000.

Lancaster—Bids received July 12 for a 2-story school. Tuttle & Hopkins, Archts., Los Angeles. Robt. B. Cameron, clk.

Thermal—Bids received July 15 by the trustees of Ensign School District for 1-story school. Wm. J. Briggs, clk.

Manhattan Beach—The local Board of Trustees has purchased a block of ground, Pacific Ave. and Center St., for a 6-room school. Estimated cost of building, \$25,000.

Pomona—Bonds, \$30,000, carried at a recent election for the erection of two schools.

Pittsburg—Site has been purchased for new school.

Princeton—Bonds, \$12,000, carried for a grammar school.

Riverside—Archit. G. Stanley Wilson, has been commissioned to prepare plans for the Perris high school, for which \$20,000 of bonds have been voted.

Venice—Bids received for addition and alterations to school. Eager & Eager, Archts., Los Angeles.

Ontario—Proposals received July 14 for erecting a grammar school building on Sultana Ave. and G St., and for tearing down part of old building and removing material from ground and removing part of present building, Ontario school district. Norman F. Marsh, Archit., Los Angeles. J. O. Mills, clk. bd. trustees.

Elsinore—Bids received July 5 for the erection of a school building. Aberhill school district. S. L. Pillar, Archit., Riverside. Chas. A. Haug, clk.

Venice—Bids received for two additional rooms to the Machado school, Venice School District. Geo. H. Nettleton, clk.

San Ysidro—An election will be held July 16 to vote on issuing bonds for a school building. Address clerk of San Ysidro School District.

Venice—The board of education announces that a bond issue for a new high school building was carried at a recent election.

Woodland—New school will be built, in place of old school building. Cost, \$50,000.

Oak Park—Archit. J. J. Donovan, Oakland, has completed plans for the proposed combination primary and grammar school to be situated on the site of the present school. Cost, \$200,000.

Ontario—Archit. Norman F. Marsh, Los Angeles, has plans for a 2-story school, Ontario school district. Cost, \$40,000.

Banning—Bids received June 26 for the erection of a school building. D. H. Gates, city clk. Cost not to exceed \$17,000.

San Bernardino—Bids received June 26 for a school for Mountain school district. Anthony

Blomer, Archit.; Mrs. L. L. Parker, clk., Highland.

Roseville—Election for bonds, \$45,000, for a new building for the Union high school was set for June 23.

COLORADO.

Glenwood Springs—New high school will be built.

La Junta—Bids received July 10 for 3-story grade school, Dist. No. 11. Walter Dupree, Archit. Cost, \$20,000.

CONNECTICUT.

Torrington—Two-story high school will be erected. (30 classrooms.) Wilson Potter, Archit., New York City. Cost, \$200,000.

Hartford—South School District will erect a \$60,000 school building on a site which now includes the Seymour, Day and Dodge properties. Bids received July 22 for the construction of a proposed public high school building. Davis & Brooks, Archts. Board of Contract and Supply.

DELAWARE.

Wilmington—The New Castle County School Commissioners will build a school for Middletown Dist. No. 120 for colored children.

DIST. OF COLUMBIA.

Washington—Archit. J. H. De Silbour has plans in progress for school building on B St., between 20th and 21st St., N. W. Cost, \$40,000.

FLORIDA.

Clearwater—Bonds, \$10,000, have been voted for the completing and equipping of schools, Clearwater Sub-school Tax District.

Tampa—Bids received July 15 for the erection of four schools. Marshall Moore, secy., and county superintendent Wm. Schneider, chm., Hillsboro County Board of Public Instruction.

Starks—Talley & Sumner, Archts., Jacksonville, have plans for the erection of a school.

Homestead—Bonds, \$10,000, have been voted for the erection of a school in Homestead School District. R. E. Hall, Miami.

Gary—Gary school district voted \$20,000 bond issue to erect school. Plans are being prepared by W. R. Biggers, Tampa.

Starks—City will vote July 5 on \$30,000 bond issue to erect high school. Address the Mayor.

GEORGIA.

Savannah—Chatham County Board of Education will erect New Haven school for negroes. Cost, about \$30,000.

Commerce—City will vote July 15 on \$5,000 school bond issue. T. A. Little, Mayor.

ILLINOIS.

Chicago—Archit. A. F. Hussander has plans for 3-story addition to Carl Schurz high school. Cost, \$250,000.

Spring Valley—Archit. Grant C. Miller, Chicago, has plans for high school, manual training and power house. Total cost, \$125,000.

Smithton—Figures are being received for 2-story parochial school. V. J. Klutho, Archit., St. Louis, Mo. Cost, \$15,000.

Cabery—Figures received for 6-room school. G. Miller, Archit., Bloomington. M. A. Riggs, secy. bd. education. Cost, \$10,000.

Cedar Point—Bids received July 14 for 4-room addition to school. V. A. Matteson, Archit., LaSalle. F. Marfells, secy. bd. education.

Chicago—Contract has been let for the erection of a new 2-story school and church. James B. Rezny, Archit. Cost, \$47,000.

Moline—Archts. Patton, Holmes & Flinn, Chicago, have plans in progress for the erection of a 3-story high school. A. Jacobson, chm. building committee. Cost, \$250,000.

Archts. Eckland & DeArment have plans in progress for 4-room school, independent school district of Highland. J. W. Stewart, secy. Cost, \$6,000.

Edwards—Bids received July 5 for the erection of a 2-room schoolhouse. B. L. Hulsebus, Archit., Peoria.

Pekin—Bids received July 5 for the construction of a schoolhouse in Dist. No. 99. John Vaupel, clk. New high school will be built.

Chicago—Figures received July 2 for the erection of 3-story Geo. B. Swift school. (24 rooms.) A. F. Hussander, Acting Archit.

North Chicago—Proposals received June 30 for the erection of a 2-story school, Dist. No. 64. Gus Fick, clk. G. W. Ashby, Archit.

Taylorville—Bids are being received for the erection of 2-story school. G. H. Helmle, Archit., Springfield; A. N. Shatten, pres. bd. education. Cost, \$10,000.

McKeen—Bids received June 23 for remodeling school building. Harry Carver, chm. bd. of directors.

Mt. Carmel—Archts. Hewitt & Emerson, Jacksonville, have plans in progress for 2-story high school. Cost, \$50,000.

Gillespie—Bids received July 7 for 2-story school and hall. S. S. Simon & Jude's Church. M. B. Kane, Archit., Edwardsville.

Galva—Proposals received July 15 for the erection of a 6-room and auditorium grade school building. Hewitt & Emerson, Archts., Peoria. A. J. Nordgren, secy. Cost, \$1,500.

Quincy—Archit. H. Chatton has plans in progress for addition to Webster school. (2 rooms and auditorium.) Dr. R. J. Christie, pres. bd. education. Cost \$15,000.

SCHOOL BUILDINGS

DUCKER
STANDARD
SECTIONAL
CONSTRUCTION
PATENTED



THE ONLY STRICTLY
Sectional School Building

that does not entail its original cost to take down and re-erect

REMOVAL DOES NOT AFFECT VALUE

DO NOT TAKE OUR STATEMENT, ASK
BOSTON, BALTIMORE, WASHINGTON, TRENTON and others

Do not purchase until you have made comparison
SEND FOR SPECIFICATIONS

DUCKER COMPANY

277 BROADWAY, NEW YORK

Three Necessities for Your Schools

SUPERIOR GOODS AT LESS COST THAN INFERIOR



**DANN'S NOISELESS
ERASER**

is now the accepted eraser
for school use. Pre-
scribed by boards of edu-
cation as standard. All
felt. The only sewed

eraser on the market. The only noiseless eraser in which provision
is made against spreading or getting out of shape.

Used in the schools of a majority of the leading cities, including New York,
Philadelphia, St. Louis, Cleveland, Milwaukee, Denver, Omaha, Minneapolis, St.
Paul, Los Angeles, Washington, D.C. Regularly purchased by the U.S. Government.

**ROWLES' BORATED
CHALK CRAYONS**

Contain absolutely nothing that can be
injurious to the child. Made of chalk and
not of plaster paris. Will outwear several
of the common kind.

Write for "Chalk Talk." You must
protect your pupils.



**ROWLES' INK
CRYSTALS**

Here is the solution of your ink
trouble. Get our crystals and you will
save your janitor work and your citizens
money. Why pay freight on water? (you
have it in your schools.)

Write today for Prices and free samples

E. W. A. ROWLES

A 327-331 So. Market St.

CHICAGO, ILL.

Arch. H. Chatton has plans in progress for
addition to Madison school. (2 rooms and
auditorium.)

Deerfield—Proposals received July 12 for a
grade school, Dist. No. 109. J. W. Gaddis,
Arch., Vincennes, Ind.; B. H. Kress, clk.

Dixon—New school building will be erected.
Joliet—An addition will be built to the high
school.

INDIANA

Indianapolis—Bids received July 29 for altera-
tions and improvements in the Public School
No. 12; also in Manual Training Annex to
School No. 12. V. H. Winterrowd, Archt. John
E. Cleland, bus. dir.

Ft. Wayne—Three-story school with manual
training room will be built. C. B. Weather-
hogg, Archt.; Ernest Cook, secy. bd. educa-
tion. Cost, \$150,000.

Terre Haute—Booker T. Washington school
is contemplated. (2-story.) A. Allen, bus. dir.
bd. education. Cost, \$50,000.

Scireleville—Bids received July 31 for com-
pletion of 2-story high school. J. T. Johnson
& Co., Archts., Indianapolis. Austin Orr,
trustee. Cost, \$40,000.

Frankfort—Bids advertised for 2-story school.
R. Daggett & Co., Archts., Indianapolis. J.
Quick, secy. bd. education. Cost, \$85,000.

Washington—Bids received for 2-story school,
St. Simons Roman Catholic Church. M. John-
son, Archt., Brazil.

Muncie—Proposals received July 28 for the
construction of a high school. Cuno Kibele,
Archt.; R. M. Retherford, secy.

Perth—Bids received July 16 for 2-room
school, Dick Johnson township. W. J. Walker,
trust.

Everton—Proposals received July 19 for a
schoolhouse in Dist. No. 3. W. H. Gurns,
Archt., Connorsville. Fred L. Myer, trus.
Jackson township.

Cannelton—Bids received for erecting a
schoolhouse in Dist. No. 1; also for rebuild-
ing schoolhouse in Dist. No. 1. Saml. E.
Colby, trus. Oil township.

Peru—Bids received July 15 for alterations
and an addition to the Elmwood school. H.
P. Fike, Archt.; Michael Burke, secy. bd.
school trustees.

Walkerton—Bids received July 17 for re-
modeling and additions to school. A. H. El-
liwood & Son, Archts., Board of Trustees.
Logansport—New High school will be erected.
Cost, about \$175,000.

Evansville—One 8-room and one 4-room school
will be erected. Cost, \$30,000. Contract was
let for 8-room school to be erected at Walnut
and Ninth Sts.

Flora—Bids received July 2 for addition to
the Wheeling school. Wheeling, on the Mich-
igan gravel road, east of Flora. John U.
Shanks, trustee.

Petersburg—Proposals received July 2 for
erection of a school in Dist. No. 1. W. C.
Hoggatt, trustee of Madison twp., and advisory
board; A. H. Johnson, chm.

LaFayette—Bids received June 28 for a 1-
story school in Dist. No. 9. J. F. Alexander
& Son, Archts.; Elmer E. Anderson, secy.
advisory board.

Rensselaer—Figures received July 10 for the

erection of a 2-story high school. Robt. M.
Hyde, Archt., Chicago, Ill. Cost, \$15,000.

Rockport—Bids received June 28 for the erec-
tion of two schoolhouses in the towns of Hat-
field and Richland City, respectively. Schuyler
C. Ferguson, trustee of Luce school township.

Rockville—Bids received for repairing and
improving Swalm Cross Roads schoolhouse in
Dist. No. 11. L. B. Humphries, trustee of
Adams township.

Greencastle—Bids received July 7 for a school
building in School Dist. No. 1. George Landes,
trustee of Greencastle township.

Franklin—Arch. George Randall has pre-
liminary plans in progress for 4-room school
near Franklin. Gilbert Henderson, trustee,
Franklin township.

Whiteland—Bids received July 13 for 1-room
addition to school near Whiteland. George
Randall, Archt., Franklin. John T. Over-
street, trustee. Cost, \$3,000.

Markleville—Bids received July 14 for the
repairing and changing of school, No. 4, at
Ovid. John Meckel, Archt., Anderson. C. B.
Pendleton, trustee of Adams township.

Depauw—Bids received June 28 for a 2-room
addition to the high school. Chas. W. Smith,
trustee of Blue River township.

Williamsport—Bids received June 28 for a
1-story school in Dist. No. 9. J. F. Alexander
& Son, Archts., LaFayette. James Dysert,
trustee of Prairie township.

Cuzco—Bids received June 27 for a 5-room
school building in Columbia township. E. E.
Ellis.

Hartford City—The Schwartzkopf school has
been condemned. New school is proposed. The
Hoover school near Montpelier has been con-
demned.

IOWA

Anita—Contract has been let for school.
\$32,840.

Auburn—Bids opened for construction of a
schoolhouse.

Boone—Contract let for high school building.
Cedar Rapids—Bids received Aug. 2 for the
erection of a school building in sub-district
No. 7. A. W. Minor, secy.

Davenport—Two-story school will be built.
H. F. Libbe, State Archt., Des Moines.

Fort Dodge—School board rejected all bids
for erection of schoolhouse.

Hawkeye—New school contemplated. Cost,
\$30,000.

New Hampton—Contract has been let for a
public school. Cost, \$52,000.

Split Lake—Bids received Aug. 2 for school
building. Steam heat. C. E. Tabor, secy.

Washington—Bids received July 10 for erec-
tion of a schoolhouse in Dist. No. 8. H.
Lauderman, chm.

Cedar Heights—Bids received July 31 for
school in Black Hawk district. J. T. Burkitt,
Archt., Waterloo. H. H. Morgan, secy.

New Providence—Arch. Jas. H. Craddock,
Omaha, Neb., has plans for 2-story high school,
independent school district. E. S. Ware, secy.
bd. education. Cost, \$40,000.

Sac City—Proposals received Aug. 2 for the
erection of a schoolhouse in subdistrict No. 3.
Wall Lake township, Sac county. Jay C.
Irwin, secy.

Des Moines—Archts. Proudfoot, Bird & Raw-
son have plans in progress for 2-story Ward
school. A. L. Clinite, secy. bd. education.
Estimated cost, \$50,000. Archt. N. T. Vorse
has preliminary plans in progress for the erec-
tion of a 2-story school, church and gymnasium,
Haskins Park M. E. Church. Rev. L. P.
Fagan, pastor. Cost, \$40,000.

Iowa Falls—Archts. Proudfoot, Bird & Raw-
son, Des Moines., have plans in progress for
3-story high school and gymnasium. W. J.
Brown, supt. of schools. Estimated cost,
\$100,000.

Blackton—Bids received July 14, for 2-story
high and grade school. Trunk & Gordon,
Archts., St. Joseph, Mo. M. F. Roof, secy.
bd. of education. Cost, \$30,000.

Monticello—Bids are being received for the
erection of a 2-story school and gymnasium.
W. J. Brown, Archt., Cedar Rapids. Dr. T.
Redmond, pres. bd. of education.

Greenville—Bids received July 17 for the
erection of a 6-room school building. W. J.
Skervis, secy. school board.

Ricketts—Bids received July 3 for the erec-
tion of a schoolhouse in independent school
district. P. H. Claussen, secy.

Des Moines—Bids received July 15 for \$23,-
500 bonds, for the construction of a school
building. O. H. Johnson, secy.

Dows—A petition is being circulated asking
an election for \$32,000 bonds for new school.
Former bonds were defeated.

Eldora—Election will be held at New Provi-
dence on July 26 to vote on erection of a
school building. Bond issue, \$40,000.

Harlan—Bids received July 14 for the erec-
tion of three schoolhouses in Polk township.
Geo. Nelson, secy., Irwin.

Humboldt—Bids received July 4 for the erec-
tion of a school building. O. S. Olson secy.
school board of Thor.

Movie—The schoolhouse in the Smith dis-
trict will soon be replaced by a larger build-
ing.

Nemaha—Bids received July 11 for the erec-
tion of a 2-story school. Chas. Fuller, secy.
Newton—Bids received July 9 for the erec-
tion of a schoolhouse in Dist. No. 2. O. C.
Bell, mem. committee.

Woodbine—Contract has been let for the
construction of a schoolhouse in Dist. No. 8.
H. M. Hunter, Archt., Cost, \$5,930.

Davenport—The Rockingham district has vot-
ed to enlarge the Walnut Hill school by adding
two rooms.

Adair—Addition will be added to high school.
Albia—Bids received July 14 for the erection
of a school. Willis Rodabaugh, secy.

Algona—Bids received July 1 for the erection
of a school. Geo. Lenertz, secy., Bode, R.
No. 1.

Buckingham—Bids received July 1 for the
erection of a new school. Lawrence A. Leslie.
Clarion—Bids received July 7 for the erec-
tion of a school in Lake Township. Wiert John-
son, secy.

Bids received July 15 for the erec-
tion of a school in District 5, Lincoln town-
ship. O. P. Morton, secy.

Glenwood—Contract has been let for Elm
Grove school.

Harlan—Bids received July 14 for the erec-

tion of three schoolhouses in Polk township.
Geo. Nelson, secy.; R. L. Irwin.

Lamoni—Bids received July 22 for the erec-
tion of a high school building. Wetherell &
Gage, Archts., Des Moines; Joseph Roberts,
pres.

Lorimer—Bids received July 14 for the erec-
tion of a 2-story school building, including
heating, plumbing and electric wiring. W. R.
Williamson, Archt., Creston. C. C. Hunter,
secy.

Stanton—Contract has been let for the erec-
tion of a school in Dist. No. 8.

Superior—Contract has been let for the erec-
tion of a school in Brunswick district.

Wellsburg—Contract has been let for school-
house in Melrose township.

New Hampton—Bonds, \$65,000, for the erec-
tion of a new school will be voted upon by
the citizens at an early meeting.

KANSAS

Kansas City—Figures received for 2-story
school. Rose & Peterson, Archts. Cost,
\$45,000. W. A. Seymour, secy.

Toronto—Arch. T. W. Williamson, Topeka,
has plans for 2-story school. E. E. Kelley,
secy. bd. education. Cost, \$19,000.

Waverly—Bids received July 31 for 2-story
addition to high school. J. C. Holland &
Son, Archts., Topeka. Fred Fockeles, secy.
bd. education. Cost, \$15,000.

Lovewell—Bids were received by the Sinclair
township high school board for a new high
school. E. K. Erickson, comr.

Lewis—Archts. Mann & Gerow, Hutchinson,
have plans in progress for 2-story school.
Will be ready for bids about July 15. Cost,
\$25,000.

Erie—Arch. C. A. Henderson, Coffeyville,
has plans in progress for 2-story high school.
Geo. Gaston, clk. bd. education. Will be ready
for bids about July 30. Cost, \$18,000.

Cedar Vale—Bids received July 12 for erec-
tion of a 2-story high school. C. A. Hender-
son, Archt., Coffeyville. F. M. Hubbard, clk.
bd. education. Cost, \$12,000.

Bunkerhill—Bids received July 5 for the
erection of a 2-story addition to school. John
M. Biays, secy. bd. education.

Wichita—School will be erected. Cost \$45,-
000. Archt. F. D. Rixae has plans in progress
for a new school building.

Burlingame—Archts. J. C. Holland & Son,
Topeka, are receiving figures for 2-story addi-
tion to school. F. M. Nelson, mem. bd. educa-
tion. Cost, \$10,000.

Dover—Bids received July 1 for 1-story
school. John F. Stanton, Archt., Topeka; H.
Perkins, secy. Cost, \$4,000.

Willard—Arch. John F. Stanton, Topeka,
has plans in progress for 1-story school. Mrs.
Abe Rogers, secy. bd. education. Cost, \$4,000.

Chanute—Proposals received July 3 for the
erection of a school building. N. P. Nielson,
Archt., Topeka. Jeanette Groome, clk.

Emporia—Bids received July 5 for the erec-
tion of a schoolhouse in Dist. No. 2. J. C.
Davis, clk., R. No. 2.

Grantville—Two-story school is contemplated.
Cost, \$5,000.

Dodge City—Bonds, \$35,000. Election to vote

LEWIS & KITCHEN

CHICAGO
KANSAS CITY

ANNOUNCE that they are now represented in the East for their entire line of waste incinerating devices by the National Incinerator Co., 303 Fifth Ave., New York City, and that they are the Western dealers in the entire line of the National Incinerator Co. The heating and ventilating business of Lewis & Kitchen is not affected by this consolidation.

THE INCINERITE

Russell Sewage Disposal System

607 Marquette Bldg., CHICAGO, ILL.

Cost no more than cesspool or privy vault, never needs cleaning, no typhoid germs. For closet in house, or outside closet. Have your architect specify the Russell System for your school building.

J. N. COLEMAN, Architect

7100 So. Chicago Ave.

CHICAGO, ILL.

Special attention paid to Heating, Ventilating and Sanitation



ECONOMY ADJUSTABLE DRAWING TABLES for school use have many advantages worthy of serious consideration. The general adaptability, rigidity and ease with which all adjustments are accomplished, makes this table a favorite in free hand drawing and art courses.

Send for full description and prices

Economy Drawing Table Co.
TOLEDO, O.

Mr. Superintendent, it is your moral duty to get your materials and school supplies as cheaply as possible. We shall be more than pleased to add our help to yours. Just drop us a line regarding your wants, and our quotations and samples will follow by next post.

Keystone Book Company

School Supplies — In General

59-67 E. Van Buren Street

Chicago, Ill.

GEO. W. PAYNE & SON

School House Architects

Carthage, Illinois

Special attention given to the proper lighting, heating and ventilation of schools. Correspondence solicited anywhere.

A handsome book of School Houses ranging from one room up (perspectives and floor plans) will be sent to School Committees that are interested in the erection of buildings for which plans have not been procured.

will be held for the erection of a new high school building.

Erie—Site has been purchased for the new \$20,000 high school building.

KENTUCKY.

Carlisle—Board of education contemplates erecting high school.

Lexington—The board of education has requested the board of city commissioners to call an election on a proposed bond issue of \$100,000 for school improvements including the erection of three school buildings.

Louisville—Arch. Fred Erhart has plans in progress for 4-room addition to St. Peter Claver school. Rev. Fr. C. Schaaf, pastor.

LOUISIANA.

Harvey—Jefferson Parish school board, Gret. na, plans to erect school between Harvey and Amesville. Cost, \$10,000.

West Lake—Arch. E. W. Phillips has plans for the proposed school. Cost, \$20,000.

Galves—The citizens voted to issue bonds for a school building in Dist. No. 2. Address clerk school board.

Westlake—The erection of a new schoolhouse has been decided upon by the Calcasieu Parish school board.

MAINE.

Orono—Arch. Wm. Hart Taylor & Son, Boston, have plans for 3-story science building, university of Maine.

Eastport—Town authorities are considering building a primary school. Archts. Gibbs & Pulsifer, Lewiston, have plans for two schools; one 1-story school with basement for manual training and domestic science, to cost \$25,000; and a 2-story school to cost, \$35,000.

York Village—Bids received July 5 for the erection of a schoolhouse. Miller & Mayo, Archts., Portland.

Portland—Mayor Oakley C. Curtis is taking steps toward the erection of a new high school building. Site has not yet been selected.

Gardiner—A joint committee has been appointed to procure preliminary plans for the proposed new high school building.

MARYLAND.

Hagerstown—Arch. A. J. Klinkhart has plans in progress for 3-story addition to high school. Bids received July 20. Cost, \$14,000.

Fair Play—Bids are being received for 2-room school. A. J. Klinkhart, Archt., Hagerstown. Cost, \$5,000.

Ringgold—Bids will be received for the erection of a 1-story school. A. J. Klinkhart, Archt., Hagerstown. Cost, \$3,500.

MASSACHUSETTS.

Taunton—Figures received July 18 for 2-story grammar school. Kilham & Hopkins, Archts., Boston.

Holyoke—All bids rejected for 3-story high school with gymnasium. Plans will be revised. Wm. B. Reid, Archt. Cost, \$300,000.

Groton—Taxpayers have voted to appropriate \$30,000 to build a new high school. A new school will be built at West Groton. Cost, \$12,500.

Roxbury—Arch. R. Clipston Sturgis, Boston, has plans in progress for 2-story addition to school. Cost, \$125,000.

Quincy—Arch. Albert H. Wright has preliminary sketches in progress for addition to Washington school. (4 classrooms and assembly hall.) John L. Miller, chm. school commission.

Brockton—Arch. Waldo V. Howard has preliminary sketches in progress for 2-story addition to school. John S. Kent, member bldg. committee.

Quincy—Arch. H. Wright has plans for an addition of four rooms and an assembly hall, Wollaston school.

Dorchester—Arch. Chas. K. Cummings, has plans for addition to Mary Lyon school. Chas. Logue, chm. schoolhouse commission, Boston. Archts. Brigham, Coveney & Bisbee, have plans for addition to Samuel Adams school.

North Adams—Archts. E. C. & G. C. Gardner, Springfield, have plans for 3-story high school. I. F. Hall, supt. of schools.

Lawrence—Six-room school will be erected this year on Ashford St.

MICHIGAN.

Grand Rapids—Bids received for 2-story school, St. Alphonsus Church. Rev. Jos. H. Chapoton, pastor. C. G. Vierhellig, Archt.

Copper City—Bids received July 8 for a 4-room addition to the Copper City school. F. D. Petermann, secy. School Dist. No. 2, Calumet township.

Caro—New high school will be built. Cost, \$10,000.

Detroit—Bids are being received for a 2-room addition to school. H. J. Rill, Archt.

Jackson—Bids received June 30 for construction and completion of a schoolhouse, Round Top School District. R. W. Frazier, chm. building committee.

Ironwood—Contract has been let for a high school building. Cost, \$125,000.

Hancock—A petition is being circulated among citizens asking the board of education for the issuance of \$25,000 bonds for the erection of a new ward school.

Marquette—Archts. Charlton & Kuenall have preliminary plans in progress for 2-story normal school. L. L. Wright, supt. state education, Lansing. Cost, \$150,000.

Dollar Bay—School to cost \$75,000 is contemplated. H. D. Conant, mem. bd. education.

Grand Rapids—An appropriation of \$60,000 has been authorized for the repairing of the Alexander and East Leonard schools and the school at Sheldon and Second Aves. It is expected that an additional \$391,000 will be appropriated for the new Sheldon Avenue Ward school and South End high school.

Adrian—High school will be repaired and improved, including fire escape.

MINNESOTA.

Minneapolis—Arch. Wm. B. Ittner, St. Louis, Mo., has plans for 3-story North high school. H. N. Leighton, chm. building committee.

Montevideo—Arch. Wm. B. Ittner, St. Louis, Mo., has plans for 2-story school. Cost, \$100,000.

Chisholm—Figures will be received July 15 for alterations and 2-story addition to Monroe school. Bell, Tyrie & Chapman, Archts., Minneapolis.

Clinton—Proposals received July 15 for erecting a school. Alban & Hausler, Archts., St. Paul. A. K. Olson, clk. school board.

St. Paul—State has made loans for new schools as follows: Montevideo, \$100,000; Little Falls, \$75,000; Farmington, \$40,000; Royalton, \$7,000; Warroad, \$2,000.

Winona—Bids received July 8 for addition to Washington school and Kosciusko school.

Crookston—Proposals received July 23 for the erection of a high and grade school building. Bert. D. Keck, Archt. Mrs. Adelaide Hodgson, clk. bd. education.

Breckenridge—Bids received July 9 for the erection of a school building. Chas. N. Bowers, clk.

Duluth—Contract has been let for erection of a grade school building. Cost, \$49,797. A petition is being circulated for a new high school building.

Ely—Bids received July 10 for the erection of a 2-story school building. G. H. Good, clk.

Grand Rapids—School will be improved, school district No. 1. Cost, \$40,000.

Rochester—Plans are being considered for erection of a 2-room schoolhouse. Cost, \$6,000.

Taylor Falls—School will be enlarged. Cost, \$12,000.

Holden—Bonds, \$13,000, carried for the erection of an addition to the present high school and to remodel the present buildings, Holden School District.

Robbinsdale—Proposals received July 1 for erection of a school building in Dist. No. 24. Downs & Eads, Archts., Minneapolis. C. A. Gardner, clk. school board.

Belview—Bids received June 24 for the erection of an addition and remodeling the school building. J. E. Nason, Archt., Minneapolis.

Red Lake—Proposals received July 28 for the erection of a school building at the Redlake Indian School. Cato Seils, comr. of Indian affairs, Washington, D. C.

Monticello—Bids received June 28 for the erection of schoolhouse No. 11. L. J. Tyler, R. No. 2.

Anoka—Bids received July 5 for building addition to school. Dist. 36, Anoka county. Andrew Swanson, clk.

Aurora—Bids received July 7 for the erection of a 10-room grade school and for alterations and improvements to the present 8-room grade school, and equipment of a 5-room grade school of Masaba. Anthony Puck, Archt., Duluth.

Eldred—Contract has been let for the erection of consolidated school. B. D. Keck, Archt., Crookston; T. W. Johnson, secy. Cost, \$12,000.

Faribault—Archts. Alban & Hausler, St. Paul, have plans for 2-story school. Cost, \$18,000.

Eveleth—Manual training school building will be built here.

Excelsior—New school will be built. Blue Earth—School will be built. District, No. 38. Cost, \$1,500 to \$2,000.

Brainerd—Bids received July 7 for the erection of a school in Dist. No. 77, Platt Lake. J. W. Heagy, clk. Dykeman.

Fergus Falls—Bids received July 9 for the erection of a 1-room school. Chas. N. Bower, clk., Rothsay. Bids received July 8 for the erection of school district No. 28, Otter Tail county. C. E. Drews, clk.

Red Lake Falls—Arch. E. L. Broomhall, Duluth, have plans in progress for a 2-story school, independent district No. 15. Cost, \$37,000.

LeSueur—Arch. H. C. Gerlach has plans in progress for new school.

Mabel—Contract has been let for schoolhouse. Cost, \$16,000.

Sherburne—Bids received July 10 for the erection of a 1-room school, Dist. No. 70, Martin county. O. F. Danielson, clk.

St. Cloud—Contract has been let for remodeling main building of normal school.

West Union—A \$4,000 school will be built.

Winton—Plans are in progress for the erection of a school building in section 30.

Duluth—The erection of a junior high school has been recommended in the West End section.

St. Paul—High school will be built at a cost not to exceed \$50,000. Peck & Wentworth, Archts., South St. Paul.

MISSISSIPPI.

Gulfport—Gulfport School District voted \$65,000 bond issue for school improvements. Address District School Trustees.

Jackson—County agricultural school will be erected. Cost, \$30,000.

Mount Olive—School will be erected.

MISSOURI.

Webb City—Arch. C. W. Stines, has plans for frame school. S. A. Moore, clk. bd. education.

Kennett—Arch. Wm. B. Ittner, St. Louis, has plans for 2-story school. Cost, \$35,000.

Ellington—Arch. H. H. Hobenschild, St. Louis, has plans for 2-story high school. Cost, \$15,000.

Pilot Grove—Bids received July 10 for a new school. Otto Kistenmacher, clk. bd. education.

St. Joseph—Arch. R. Meier has plans in progress for 2-story school, St. Patrick's Catholic Parish. Rev. E. A. Bolger, pastor. Cost, \$40,000.

West Plains—Archts. J. H. Felt & Co., Kansas City, have preliminary plans in progress for 2-story school. Cost, \$20,000.

St. Louis—Schools on Tower Grove St. and Carr St. will be altered. Cost, \$14,000 and \$13,000, respectively.

Houston—H. H. Hobenschild, St. Louis, has plans in progress for 4-room addition to school building. Cost, \$6,500.

MONTANA.

Bozeman—Plans are in progress for a school building. Cost, about \$25,000.

Plentywood—Arch. Harold E. Winslow has plans in progress for 2-story school. Estimated cost, \$13,000.

Dillon—Addition will be built to the Beaverhead high school.

Polson—School building has been proposed. Cost, \$10,000.

Roundup—Contract has been let for erection of school.

Glendive—Bonds, \$46,000 will be voted for the erection of a new ward school building by the citizens of the local school district.

Kallispell—Bids received June 30 for the erection of a 2-story school. J. B. Gibson, Kallispell. Ella E. Hess, clk. school Dist. No. 7, Warland.

Columbia Falls—The school board is planning to select a site for the location of a new school building.

NEBRASKA.

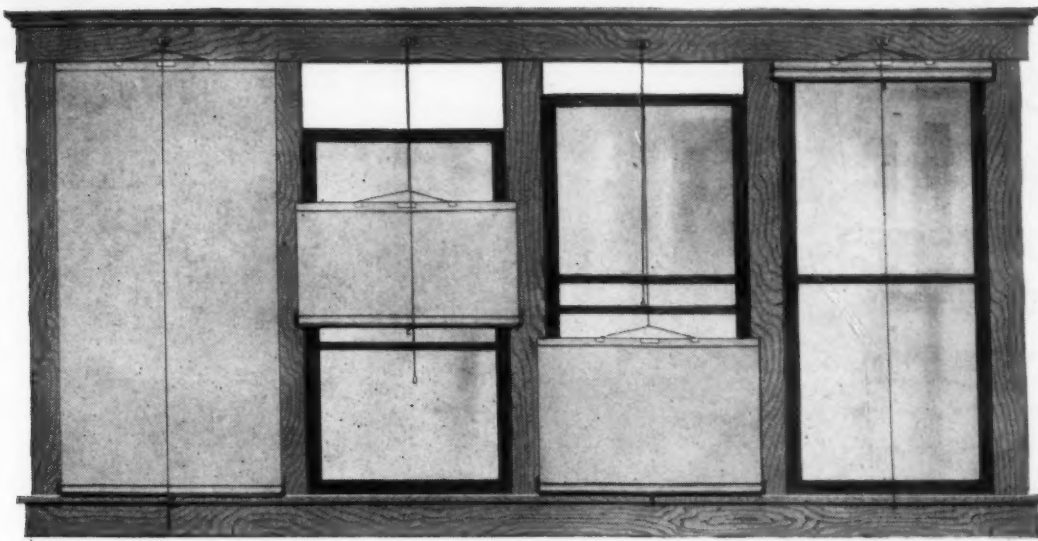
Gordon—Contract has been let for building addition to schoolhouse.

Loup City—Agitation has been started for new school.

Nickerson—School board contemplates erection of a school.

Scribner—Agitation has been started for new school.

Stanton—Bids received July 14 for erection of school. A. L. Burnham, co. supt.



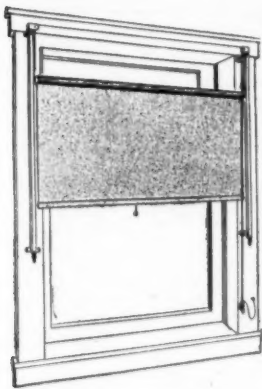
Here you have the Draper Shade showing four different positions.

Remember, Draper Shades are adjustable to any and every position.

Let us tell you about our special proposition for your new and old buildings.

Send for sample, today

LUTHER O. DRAPER SHADE CO.
SPICELAND, IND.



THE WIMMER

Shade "Adjuster" for lowering shade from the top, for upper light and ventilation in the class room offices, etc.

C. I. Wimmer & Co.
MFRS.
Columbus, O.



Cotton Duck Window Shades

Let us send you a sample of our Adjustable Shade, free of all expense to you. :: ::

The Fuson Adjustable Shade Co.
SPICELAND, IND.

EASTERN OFFICE
INTER-STATE SALES CO.
819 American Trust Bldg., CLEVELAND

WESTERN OFFICE
JOHN B. RICKETTS & SON
309 Junction Bldg., KANSAS CITY



JOHNSON'S SHADE ADJUSTERS

work perfectly on ordinary shade rollers. Are considered indispensable for securing the "upper" or best light in School Buildings.

A full size permanent sample mailed to School Boards.
R. R. JOHNSON,
Manufacturer
7208 Vincennes Av.
CHICAGO, ILL.



FEDERAL

BUILT FOR SERVICE

Steel Lockers

They cost more
Because—
They are worth more

Send for our Catalog

Federal Steel Fixture Co.
4545 W. Homer St., Chicago

SLOYD, STENCIL AND MANUAL TRAINING

KNIVES

R. Murphy's Sons Company
Established 1850
Ayer, Mass.

Sanitary Lighting and Automatic Folding

The Famous S. L. & A. F. Shades Made of DUCKING Cloth. HAVE NO SPRING ROLLER. Fold to ONE-SIXTH their area at one operation. Act at both top and bottom ends. Have the fewest parts never get out of order. Act most rapidly and last longest. Handled by leading Supply Houses everywhere, or address OLIVER C. STEELE MFG. CO. SPICELAND, IND.

MOTOR HEAD LATHES
For any Current



Built by
TANNEWITZ WORKS
Grand Rapids, Mich.

Surprise—New school will be built in Dist. No. 47.
Wayne—School will be built. Cost, about \$18,000.
Stella—New school will be built on Main St. Cost, \$15,000.
Chadron—Wing will be built to Normal school. J. J. Tooley, secy. state bd. education of normal schools, Anselmo. Will select architect this summer. Cost, \$60,000.
Creston—The school board is contemplating the erection of a new school.
Seward—The school board decided to build a kindergarten school.
Wahoo—Contract has been let for 4-room grade school. John Latenser, Archt., Omaha.
Omaha—The school board will ask for \$1,000,000 for school buildings and additions for next year. \$500,000 will be used for an industrial high school and balance for additions and replacements to grade school. The board contemplates building a special school for delinquent boys to be located near Ft. Omaha.
Burchard—Archt. W. F. Gernandt, Omaha, has plans in progress for 2-story school. Albert Stake, secy. bd. education. Cost, \$3,000.
Hartington—Bids received July 8 for the construction, without heating, ventilating and plumbing of a high school building, Dist. No. 8. John Latenser, Archt., Omaha. F. W. Barnhart, secy.
Grant—Bonds, \$10,000, have been issued for the erection of a schoolhouse.
NEW JERSEY.
Newark—Archt. E. F. Guilbert has preliminary plans for several school buildings. R. D. Argue, secy. bd. education. Total cost, \$826,000.
West New York—Bids received July 21 for 3-story school. Gregory B. Webb, Archt., New York City. Joseph Stiltz, pres. bd. education. Cost, \$100,000.
Roosevelt—Bids received July 22 for 2-story school and auditorium. W. H. Boylan, Archt., New Brunswick. Geo. W. Morgan, clk. bd. education. Cost, \$40,000.
Union—Bids received July 22 for 4-room addition to school. Jacob Wind, Jr., Archt., Elizabeth. A. D. Woodfield, secy. bd. education. Cost, \$15,000.
Metuchen—Bids received July 24 for 2-story school. Alex. Merchant, Archt., New Brunswick. E. Tappan, clk. bd. education. Cost, \$15,000.

Trenton—Bids are being received for the remodeling of school. W. A. Poland, Archt. Cost, \$5,000.
West Orange—Archts. Dillon, McLellan & Beadel, New York City, have plans in progress for 1-story school. Albert Wrensch, clk. Cost, \$16,000.
Pleasantville—Archt. J. Vaughn Mathis has plans for addition to school. Cost, \$35,000.
Audubon—Archt. David C. Lance has revised plans for 1-story school. Wm. Henry, Jr., clk. Cost, \$30,000. Archts. Hauer & Mowere, Philadelphia, Pa., have revised plans for 1-story school. Wm. Henry, Jr., clk. Cost, \$30,000.
Lindenwald—Archts. Borzner & Wood, Philadelphia, Pa., have plans for 1-story school. Cost, \$10,000.
Camden—Bonds, \$100,000, carried for the erection of two schools—one at Moorestown to cost \$95,000 and the other at Maple Shade, to cost \$5,000.
Montclair—Three-story high school to cost \$400,000 has been proposed. Starrett & Van Vleck, Archts., New York City. Thos. T. Waller, chm. bldg. committee.
Westwood—Archt. Wm. Whitney Rasmussen, New York City, has plans in progress for 2-story high school. Jas. E. Ackerman, clk. Cost, \$29,000.
Vineland—Bids are being received for 3-story school, (alt. and Add.) Moffett & Stewart, Archts., Camden; Wm. S. Mitchell. Cost, \$15,000.
Haddon Heights—School is contemplated. (6 rooms and auditorium.) H. King Conklin, Archt., Newark. Will advertise for bids shortly.
Wildwood—Archt. Lynn H. Boyer is receiving bids on revised plans for 2-story addition to school. Cost, \$25,000.
Hoboken—A resolution authorizing \$70,000, bonds, has been passed by the board of education for the purpose of rebuilding Public School No. 1.
Elizabeth—Bonds, \$50,000, has been approved by the board of education for the erection of a new school building.
NEW MEXICO.
Columbus—Bids received July 26 for a new school, Dist. No. 9. J. M. Holloway, dir. Bids will be received until Sept. 4 for erecting a 4-room school, Dist. No. 5. D. J. Chadhorn, dir.
NEW YORK.
Rochester—Advised for bids for 1-story addition to school No. 10. Gordon & Madden,

Archts. J. S. Mullen, secy. bd. education. Cost, \$75,000.
Saranac Lake—Archt. W. L. Symonds, has plans for alterations to school. C. J. Carey, pres. bd. education. Cost, \$10,000.
Manlius—Figures received for 1-story school, Dist. No. 20. Edward Howard, Archt.; Nicholas Roeder, chm. building committee.
Ellenville—School is contemplated. H. Wesley Coons, secy. bd. education. Cost, \$55,000.
Caledonia—Archt. J. Mills Platt, Rochester, has preliminary plans for 2-story school. Charles Menzie, pres. bd. education.
Norwich—An addition will be built to the present high school. Cost, \$60,000.
New York—Archt. C. B. J. Snyder, has preliminary plans for the erection of a 3-story public school, No. 96, Borough of Queens. Cost, \$140,000. Archt. C. B. J. Snyder has preliminary plans for addition to public school No. 21. Cost, \$95,000.
Brooklyn—Archt. C. B. J. Snyder, New York City, has preliminary plans for 3-story public school, No. 45. Cost, \$270,000.
White Plains—Archt. F. H. Brown, has preliminary plans for alterations and additions to schools, school district of White Plains. John Y. Lavery, pres. bd. education. Cost, \$100,000.
Buffalo—Archt. Howard L. Beck has plans for 3-story school No. 60, (domestic science, gymnasium, shower baths and assembly room.) 15 rooms. H. P. Emerson, supt. Cost, \$90,000. School and new auditorium (alt) is contemplated. Colson & Hudson, Archts., Dr. Kopid, rabbi. Cost, \$60,000. Archt. Howard L. Beck has plans for 4-room addition to school No. 21. Cost, \$10,000. Archt. Howard L. Beck has preliminary plans for school No. 42. (16 rooms).
Rochester—Archts. Gordon & Madden have preliminary plans for 2-story school No. 13. Cost, \$165,000. Bids received July 19 for addition to school No. 10. Gordon & Madden, Archts.; J. S. Mullen, secy. bd. education. Cost, \$75,000.
Poughkeepsie—Archt. P. M. Lloyd has plans for 6-room addition to school. H. R. Gurney, pres. school board. Cost, \$35,000.
Endicott—Three-story school will be built. Tiffany & Conrad, Archts., Binghamton. G. Ames, chm. building committee. Cost, \$75,000.
Oneida—Bids received for two-story grade school. A. F. Lansing, Archt., Watertown. T. Devereaux, chm. building committee. Cost, \$30,000.

Brighton—Archt. Horace T. Hatton, Rochester, has plans for 1-story school. Mr. Motherell, trus., West Brighton. Will receive bids about July 15. Cost, \$6,000.
Alton—Archt. Joseph Blaby, Palmyra, has plans for school. Dist. No. 11.
Sandy Creek—Bids received July 15 for the erection of a high school, Union Free School Dist. No. 9. H. L. Wallace, secy. Gordon A. Wright, Archt., Syracuse.
Schenectady—Bids received July 23 for three schools for the second, ninth and tenth wards. W. Thomas Wooley, Archt.
Ballston Spa—Bonds, \$30,680, have been voted for the erection of a school building.
Caledonia—An addition will be built to the present school building. Cost, \$20,000.
Lodi—Archts. Makepeace & Makepeace, Syracuse, are receiving figures for 8-room school. F. M. Hulsey, pres. Cost, \$14,000.
Clyde—Archt. Jos. H. Oberlies, Rochester, is receiving figures for a 3-story school and hall. St. John's R. C. Church. Rev. Fr. Gleason, pastor. Cost, \$20,000.
Oneida Castle—Figures received July 19 for 2-story school. Walter Frank, Utica, Archt.; C. M. Babcock, chm. bldg. committee. Cost, \$16,000.
Capron—Archt. Walter Frank, Utica, has plans in progress for 1½-story school. Mr. French, pres. school board. Cost, \$10,000.
Schenectady—Bids received July 23 for the construction of three schools, in the 2d, 9th and 10th wards. W. Thos. Wooley, Archt.
Lockport—Bids received June 27 for repairs to the Clinton Street and Intermediate school. Emmet Balknap, clk.
Monticello—Archt. Wm. T. Towner, New York City, has plans for 2-story school. (8 rooms and gymnasium.) Cost, \$45,000.
Whitehall—School contemplated. Project will be voted upon this summer, three propositions, as follows: Addition to present building, \$40,000; auxiliary building, \$50,000; new high school, \$100,000. W. W. Andres, supt. of schools.
Mechanicsville—School to cost \$140,000 contemplated. A. J. Fry, supt. of schools. Willbur Vleroy, pres. bd. education. A special election will be held July 15.
Scarsdale—Three-story school proposed, school district of Scarsdale. W. H. Sage, pres. bd. education, New York City. Cost, \$40,000.
Depew—School to cost \$50,000 contemplated. Mr. Dann, supt. bd. education.



Hamrick-Tobey Sanitary Drinking Fountain for Rural Schools

Sanitary—Durable

Embodies all the perfections of Bubblers operating under water pressure

Write for Prices and Catalogs

Hamrick-Tobey Co.
Wausau, Wis.

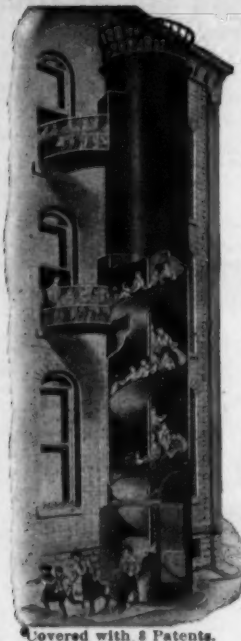


Modern High School—Cost \$85,000

J. H. FELT D. B. FOSTER
J. H. Felt & Company
Architects
School Specialists
Suite 800 Grand Ave. Temple
Kansas City, Mo.

Architects for
William Jewell College, Liberty, Mo.
Mo. Colony for Feeble Minded,
Marshall, Mo.
Hutchinson High School,
Hutchinson, Kas.
Emporia High School,
Emporia, Kas.
Lexington High School,
Lexington, Neb.
York High School, York, Neb.
Dodge High School, Dodge, Neb.
Winfield High School, Winfield, Kas.
Webb City High School,
Webb City, Mo.
Clinton High School, Clinton, Mo.

SPIRAL SLIDE FIRE ESCAPE

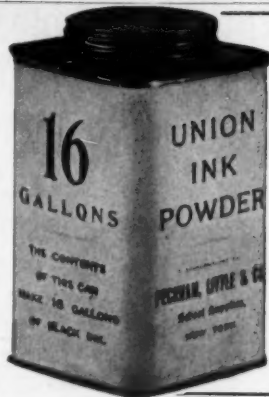


Conceded by leading School Boards, Architects, and Fire Chiefs to be the best in the world. All step-escapes are necessarily dangerous. One falls, another stumbles over the fallen, and another, breaking limbs and crushing out lives in the mad rush from smoke and flame.

In the Kierker-Bender there is no stumbling, no falling, everybody slides to safety. Especially suited to women and children.

Illustrated booklet free. Write to-day; your letter may save a life.

DOW FIRE ESCAPE WORKS
LOUISVILLE, KY.



UNION INK POWDER

Makes a good black Ink with the addition of lukewarm water.

100 per cent. cheaper than liquid Ink. Universally used by Public and Private Schools. One five Gallon Can mailed on receipt of \$1.00.

Sample and prices sent on application.

PECKHAM, LITTLE & CO.
57-59 East Eleventh Street. NEW YORK

FOR MODERN SCHOOLS The Sanitary Seamless Stone Blackboard

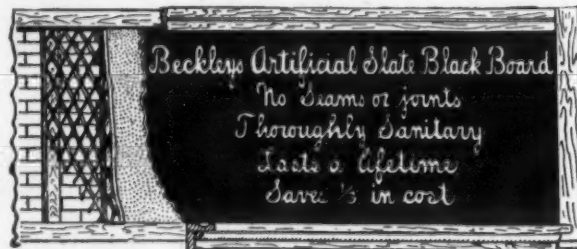
Ground Slate, Steel and Cement, applied with a trowel on a base-coat of hard plaster makes a

Solid Concrete Slate Surface

without seam or joint, last as long as the building, is fire proof, is not injured by washing, and is

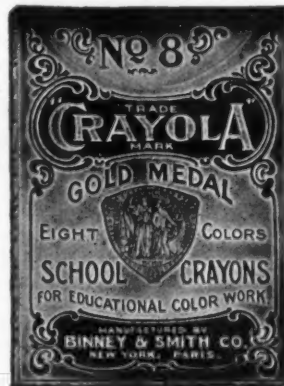
Thoroughly Clean and Sanitary

Write for catalog.



BECKLEY-CARDY CO. 312 W. Randolph St. CHICAGO

CRAYONS FOR EVERY USE



Send for samples of full line

BINNEY & SMITH CO.

81-83 Fulton St., N. Y.

Binghamton—The matter of repairing various school buildings and the buying of sites for new buildings, have been authorized by taxpayers at a recent meeting.

Niagara Falls—The new Fifth Ward school will be erected at Ferry Ave. and Tenth St.

NORTH CAROLINA.

Asheville—Addition will be built to Orange Street School. Cost, \$15,754. Address the Mayor.

Brevard—Archts. Sayre & Baldwin, Anderson, have plans for 4-story administration building. Mrs. R. W. McDonald, secy. building committee, Nashville, Tenn. Will open bids about August 15. Cost, \$30,000.

Lumberton—Robeson County school board will erect schools at Red Springs, cost, \$15,000; Philadelphia, cost, \$15,000; Lumber Ridge, cost, \$12,000, and St. Pauls, cost, \$15,000. J. R. Pool, supt.

Rockingham—Bonds, \$30,000, have been voted for school improvements. Address District School Trustees.

NORTH DAKOTA.

Devils Lake—Bids received Aug. 1 for erection and completion of school. E. F. Palmer, clk.

Fillmore—Contract has been let for 2-story school.

Hannaford—Bids received July 30 for two 2-story schools, one to be built in Revere and one in S. W. corner of section 5. L. O. Skjelset, clk.

Langdon—Bids received July 21 for erection of four schools in Hay district. John Balsdon, clk.

Osnabrock—Bids received July 21 for the erection of four schoolhouses, Hay School District. John Balsdon, clk.

Wimbledon—Bids received July 14 for new school, Rose Dist. No. 16. Myron Ackerman, clk.

Banks—Bids received July 5 for the erection of two school buildings. O. A. Vick, clk.

Braddock—New training school will be built. Cost, \$35,000.

Ypsilanti—Bids received July 14 for the erection of a schoolhouse, Corwin Dist. No. 50. Fred Hendrickson, mem. school board.

Geneseo—Bids received July 5 for alteration and repairing of school. W. D. Truax, clk.

Grand Forks—Bids received July 21 for the erection of four school buildings. John Balsdon, clk.

Jamestown—Bids received July 14 for building schoolhouse, Corwin Dist. No. 50. Fred Hendrickson, Ypsilanti, N. D.

Jamestown—Bids received July 14 for the

erection of a schoolhouse, Rose Dist. No. 16. Myron Ackerman, Wimbledon.

Ligerwood—Bids will be taken shortly for the erection of a 2-story parochial school. Cost, \$7,000.

Park River—Contract has been let for the erection of the agriculture and training school. Cost, \$25,500.

Pingree—Contract has been let for erection of a 1-story school, Lees Dist. No. 10. P. S. Walton, Archt.; J. H. Ratlaiff, clk.

Stirum—Bonds, \$3,000, have been voted for building.

OHIO.

Cleveland—Archt. W. R. McCornack has plans for 2-story school for the deaf. Frank G. Hogan, dir. Cost, \$35,000.

Chagrin Falls—Archt. W. G. Eckles, New Castle, Pa., has preliminary plans for 2-story annex to high school. (10 classrooms and gymnasium.) J. H. Church, clk. Cost, \$40,000.

Hiram—Archt. Paul T. Cahill, Cleveland, has plans for 2-story centralized school. Harry L. Green, clk. Cost, \$30,000.

Bedford—Four-room school will be built. R. H. Hinsdale, Archt., Cleveland. Mrs. Emma Semters, pres. bd. education. Will advertise for figures about July 25. Cost, \$20,000.

Urbana—Two-story colored school will be built. Archt. Robt. C. Gotwald, Springfield. Cost, \$15,000.

Springfield—Proposals received July 21 for 2-story school. Albert Pretzinger and Edw. P. Musseiman, Archts., Dayton. W. H. Holmes, clk. bd. education.

Elyria—Archt. Paul A. Rissman has plans for annex to Central High school. (2-story) S. S. Rockwood, cis. bd. education. Bids to be called for about Sept. 1. Cost, \$150,000.

Grade school will be built. (1-story) E. S. Silsbee, Archt. Cost, \$35,000.

Nelsonville—Archts. Howard & Merriam, Columbus, have plans for 2-story school. Cost, \$15,000.

Dayton—Archt. W. L. Jaecle has plans for a 2-story school. Mager Holy Name Parish, Rev. Chas. Polchek, pastor. Cost, \$20,000.

Bellevue—Bids received July 23 for one 2-room addition to school, and one 4-room new school. M. & M. Strophlet, Archts., Toledo. J. E. Wise, clk. bd. education.

Hudson—Archts. Page & Corbusier, Cleveland, have plans for 2-story centralized school. (14 classrooms, manual training rooms, model housekeeping suite and gymnasium). Clarence Bouton, clk. Cost, \$30,000. Figures to be called for about Sept. 1.

Sebring—Bids received July 21 for the

erection of a schoolhouse on the Brandy rd. Harry Jenkins, clk. bd. education, Smith township.

Wooster—Proposals received July 24 for a fireproof addition to the Administration building. W. H. Kramer, bursar, Ohio Agricultural Experiment Station.

Elida—Archts. Leech & Leech, Lima, have plans for 2-story school. C. H. Pfeiffer, secy. bd. education. Cost, \$25,000.

Canal Dover—Bids received July 5 for the erection of a school building. Emerson L. Dessecker, clk. bd. education, Fairfield township.

Washington—Bids received July 19 for a 2-room school on the premises recently purchased of J. E. Aibring, in Subdistrict No. 1. Louis G. Welker, Archt., Toledo.

Castalia—Contract has been let for the 8-room high school building.

Newark—Bids received Aug. 1 for the purpose of performing labor and furnishing materials necessary to the erection of a 4-room school.

Toledo—Proposals received July 19 for the erection of a 2-room school. Louis A. Welker, Archt.; A. Bolton, clk.

Troy—Arch. Frank L. Packard, Columbus, has plans in progress for high schools including auditorium, gymnasium, manual training and domestic science departments and 20 classrooms. J. C. Fullerton, clk. Cost, \$125,000.

Chillicothe—Bids received July 11 for the erection of a schoolhouse in Dist. No. 10. E. H. Minear, clk. bd. education South Union twp., Andersonville, R. No. 8.

Lodi—Proposals received July 1 for the erection of a 2-story grade school. Vernon Redding, Archt., Mansfield; W. R. Grannis, clk. bd. education. Cost, \$22,000.

Elgin—Archt. B. F. Matthews, Lima, is receiving figures for 1-story school. J. W. Reese, clk.; D. H. Jones, pres. Cost \$3,000.

Massillon—Bids received June 27 for the completion of gymnasium and auditorium of the Washington high school. Vernon Redding, Archt., Mansfield; O. P. Foust, clk. Cost, \$100,000.

Westminster—Proposals received July 17 for erection of a 1-story school. Leech & Leech, Archts., Lima; W. H. Creps, clk.

Wilmington—Bids received July 5 for the erection of a 1-story high school, Mt. Pleasant School District. (3 rooms.) H. M. Owens, Archt., Xenia. Chas. Skimming, clk. bd. education, R. F. D. Cost, \$6,000.

Clifton—Bids received July 8 for addition to

school. (2 rooms and hall.) H. M. Owens, Archt., Xenia; W. H. Fordes, clk. Cost, \$5,000.

OKLAHOMA.

Watts—Proposals received July 10 for a 2-story school, Dist. No. 4. Chas. S. Martin, Archt., Claremore. C. C. Shook, clk. bd. directors.

OREGON.

Metolius—Bids received July 21 for erecting a 3-story school, Dist. No. 80. Sweatt, Levesque & Co., Archts., Spokane, Wash. Isaac Serier, clk. Estimated cost, \$8,500.

Lents—A 4-room addition will be built to the Gilbert school.

Hillsboro—Proposals received July 7 for furnishing material and constructing a 2-story school on Fir St., between Second and Third. Mark W. Lappen, pastor of St. Matthew's Church.

Banks—Archts. Fred A. Legg and George A. Kingsburg, have plans for the construction of a 4-room school. W. L. Moore, clk. Bids received July 14.

North Bend—Contract has been let for the construction of a 2-story school. Cost, \$18,800.

Newport—The Agate Beach school district will build new school.

Eugene—Archts. Hunziker & Preussner have plans in progress for the remodeling of the Geary school.

PENNSYLVANIA.

Spring City—An agitation has been begun for a new high school building. Present enrollment 104. Address Thomas A. Bock, supervising principal.

New Castle—Bids received July 8 for alterations at the Oak Street School and also at the Eighth Grade building. H. M. Marquis, secy.

Vintondale—Bids received for 2-story school including heating plant, plumbing and wiring. Robt. M. Clyde, secy.

Friedens—Bids were received by the board of school directors of Somerset township July 7 for one 2-story school; one 2-room school; and two 1-room schools, including heating and ventilating systems. Wilson R. Barron, secy.

Philadelphia—Bids received July 7 for 2-story addition to school. J. Horace Cook, Archt. Cost, \$100,000. Bids received July 7 for 3-story addition to school. J. Horace Cook, Archt. Cost, \$45,000.

Scranton—Archt. A. J. Miller has plans for the erection of two schools. E. D. Fellows, secy. bd. education. Archts. Blackwood & Nelson have plans for remodeling of school No. 23. E. D. Fellows, secy. bd. education.

Meadville—Archts. Blithe & Richards, Phila-



NOTICE

We have the LARGEST FACTORY IN THE WORLD devoted to the EXCLUSIVE production of the above appliances and have THOUSANDS OF WORK BENCHES AND DOMESTIC SCIENCE TABLES all ready to load on the cars.

CONSIDER

We are now in correspondence WITH MORE THAN A THOUSAND SCHOOLS where equipments are being purchased for the coming year.

REMEMBER

The experience of the "FOOLISH VIRGINS."

SHOP EARLY

E. H. SHELDON & CO.
Muskegon Mich.

Streissguth-Petran Engraving Co.

West Water & Wells Milwaukee Phone Grand 1960



Before you go—
Bait your literature
with **S-P** Quality
Engravings

delphia, have plans for new school. Cost, \$30,000.

Palmerton—Bids received for a 2-story school. M. D. Prutzman, Archt., Mauch Chunk. Cost, \$50,000.

Derry—High school will be built (3-story). Wm. G. Eckles, Archt., New Castle. J. H. Paterson, Secy. Cost, \$45,000.

Media—Archt. Walter Smedley, Philadelphia, has plans for a school. Cost, \$25,000.

Collingdale—Archts. Blithe & Richards, Philadelphia, have plans for new school. Cost, \$20,000.

Springtown—Archt. A. W. Leh, South Bethlehem, has plans for 2-story school. Cost, \$10,000.

Wernersville—Archt. Wayne M. High, Reading, has plans for 1-story addition to school. Wm. Moyer, secy.

Millersburg—Bids received July 1 for the erection of a high school building. W. Douden, Archt.; Isaac W. Hoffman, secy. school board.

Philadelphia—Archt. E. F. Durang has plans for an addition to the school of St. Leo's Catholic Church, Tacony.

Pittsburgh—New grade school is proposed in the North Negley avenue section, Colombo St. Janson & Abbott, Archts.; grade school proposed in Webster avenue and Watt St. Ing-ham & Boyd, Archts.

Philadelphia—Archt. Henry J. Reinhold, Jr., school district of Conshohocken has plans in progress for 2-story school. Cost, \$80,000.

Pittsburgh—Bids will be received for the erection of three 2-story schools. F. M. Miller, Archt., Wilkinsburg. Harley K. Stotler, secy. Cost, \$18,000, each.

Hazleton—Archt. E. E. Joralemon, Buffalo, N. Y., has plans in progress for the erection of a new school. John M. Galloway, pres. bd. education. Cost, \$75,000.

Edwardsville—Bids received June 27 for the erection of a 4-room school building, school district of Edwardsville. Jas. A. Boyle, Archt.; Kingston; Alfred Davis, secy.

Wilkesbarre—Archts. Reilly & Schroeder are receiving figures for a 3-story parochial school. St. Nicholas R. C. Church, C. J. Goeckel, pastor. Cost, \$100,000.

Hooverville—Archt. E. H. Walker, Somerset, has plans in progress for a 4-room addition to the present school building (also remodeling of school). W. P. Hoover, pres., School Directors.

Pittsburgh—A new school will be erected on W. Ninth Ave., by the congregation of St. Clement's Church, Tarentum. Rev. Edward Kitz, pastor. Cost, \$10,000.

Pittsburgh—South Hills High School will be erected at Secane Ave., Ruth, Harwood and Eureka Sts. Cost, \$265,000. West End Sheridan High School will be built. Cost, \$200,000. Dilworth Grade School will be erected at Stanton Ave., and Meadow St. Cost, \$185,000.

Wait and Webster Grade School will be erected. Cost, \$185,000. Site will be chosen for the \$185,000 Negley Grade School. Hazelwood Grade School will be erected at Hazelwood Ave., and Gladstone St. Cost, \$110,000.

Chambersburg—Site has been purchased for new school on the corner of South Main and South Streets.

RHODE ISLAND.

Providence—Archt. Rogers has plans in progress for new high school, construction to begin in August.

SOUTH CAROLINA.

Anderson—Archt. J. H. Casey and Archts. Sayre & Baldwin have plans for Glenn St., Kennedy St., S. Main St. and E. Whitner St. schools; 10, 10, 3 and 4 rooms, respectively. Voted \$100,000 bond issue.

Greer—Bonds, \$5,500, have been voted for four additional rooms to school. R. E. Lee, Archt., Clemson College. J. D. Lanford, trus. Bids opened about July 20. Cost, \$4,000 to \$4,500.

Mountville—Bonds, \$3,000, have been voted for the erection of a school, Mountville School District. Address District School Trustees.

Olar—Olar School Dist. No. 3 voted July 1 on tax for school improvements. R. W. D. Rowell, mem. county board education, Bamberg.

SOUTH DAKOTA.

De Smet—Bids received July 25 for schoolhouse in Dist No. 53. L. F. Hanson, clk.

Elk Point—Bonds, \$13,500, were voted. Lake Andes—Bids will be received for the erection of two schoolhouses in White Swan District. Jack Moran, clk.

Martin—Bonds, \$2,500, have been voted for the construction of a new public school.

Strandburg—Proposals received July 14 for the construction of a school building, Troy School Dist. No. 4. J. D. Misener, clk. school board.

Wagner—Kennedy township voted \$2,500 to build a school building.

Gregory—Bids received July 26 for enlarging of two school buildings. Orra Shaffer, clk.

Britton—Bids received July 19 for school Dist. No. 1. Frank W. Hammond, clk.

Colome—Two-story school will be built. Grover—School will be built. Henry Caplan, mem. bd. education. Cost, \$3,000.

Henry—Bids received July 5 for the erection of an addition to school. Independent school district. E. J. Glinther, clk.

Mission Hill—Bids received July 16 for the erection of a school. F. C. Kuehn, Archt.; Chas. Judstrup, clk. bd. education.

TENNESSEE.

Evansville—Rhea County school board will erect school at Dayton. J. T. Darwin, mem. building committee.

Jasper—Marion County school board will petition County Court for issuance of \$50,000 of bonds to repair present structures and to erect new schools.

TEXAS.

Jayton—Bonds, \$12,000, have been voted to erect school. Address the Mayor.

Hutchins—Bonds, \$10,000, voted to erect school. Address the Mayor.

Poteet—Bonds, \$30,000, voted to erect school. Address the Mayor.

Belton—Willow Grove School District voted \$5,000 bond issue to erect school. Address District School Trustees.

Terrell—Archts. Van Slyke & Woodruff, Oklahoma, Okla., and Ft. Worth, Tex., have plans for 2-story grade school. Ed. R. Bum-pas, secy. school board. Cost, \$13,500.

Van Zandt (Saginaw P. O.)—Archts. Van Slyke & Woodruff, Oklahoma, Okla., and Ft. Worth, Tex., have plans for 2-story school. W. O. Millican, secy. school board. Cost, \$12,000.

Kopperl—Bids were received by the board of trustees of Kopperl School District for a 2-story school. S. A. Caruthers, secy.

Red Oak—Bids received July 2 for 2-story school. J. T. & J. O. Galbraith, Archts., Chickasha and Hillsboro. W. P. Sullivan, pres.

Bandera—School Trustees will expend \$10,000 to erect public school. (6 classrooms and auditorium) J. V. Oppert, Archt., Comfort.

Dallas—Cumberland Hill City School will be erected. Cost, \$15,000. Address the Mayor.

Harvey—Bonds, \$4,000, will be voted on for school improvements, Harvey School District. Address District School Trustees.

Ore City—Bonds, \$5,000, have been voted for the erection of a 2-story school, independent school district. Address District School Trustees.

Strawn—Bonds, \$16,000, have been voted for the erection of a school. Address the Mayor.

Wolfe City—Bonds, \$9,500, have been voted for school improvements, Wolfe City School District. Address District School Trustees.

Sulphur Springs—Bonds have been voted for the erection of school buildings, Nelta and Richland school districts.

Richardson—Richardson independent school district decided to issue \$16,000 bonds, for a school building.

Houston—Bids received June 28 for a 1-story school for Dist. No. 34. Lane & Dowdy, Archts.; E. L. Pugh, school superintendent of Harris county.

Goliad—Bids received June 26 for 2-story high school. Green & Finger, Archts., Galveston & Houston; Dr. R. R. LeMaster, pres.

Bellaire—Archts. Jones & Tabor, Houston, have plans for 2-story school. Cost, \$10,000.

Temple—Willow Grove School District will vote on \$5,000 bond issue for school improvements. Address District School Trustees.

UTAH.

Salt Lake City—Bid received June 25 for finishing of the auditorium, three rooms and hall in high school, Jordan school district. N. Edw. Liljenberg, Archt.

Sandy—New high school will be erected in Jordan school district, on the State Road, near Sandy. N. Edw. Liljenberg, Archt. Cost, \$100,000.

VERMONT.

Bennington—Archts. Cooper & Bailey, Boston, Mass., have plans for 2-story school. Homer H. Webster, chm. building committee.

VIRGINIA.

Altavista—Bids received June 20 for 1-story addition to the high school, Otter River District. Heard & Cardwell, Archts., Lynchburg.

Bristol—High school to cost \$50,000 will be built. F. B. Fitzpatrick, superintendent of schools.

Richmond—Bids received July 1 for addition to the Baker school. C. M. Robinson, Archt.; C. P. Walford, clk. and supervisor Richmond public schools.

Roanoke—Site has been purchased in Fair-

view for new school. C. W. Compton, chm. Cost, \$4,000 to \$5,000.

WASHINGTON.

Wilson Creek—Bids received July 7 for the erection and completion of a 2-story school. C. Ferris White, Archt., Spokane. A. E. Nicholls, clk. school board, Dist. No. 2, Grant County.

Blaine—The Birch Bay and Drayton rural school districts will enlarge school. Cost, \$2,800.

Colfax—Contract has been let for the erection of a 4-room addition to the North ward school. Cost, \$9,080.

Silverdale—Definite plans are now being formed for a Union high school, to cost approximately \$10,000.

Camas—Archt. Fred A. Legg has plans for the construction of a 2-story school.

WEST VIRGINIA.

Sherwood—Four-room school will be built. Hendricks—Bids received July 18 for 2-room addition to school building, Black Ford District. H. A. Ridgway, secy. bd. education.

Cowen—Bids received for the erection of a 2-story high school, Glade District. A. F. Wysong, Archt., Princeton. D. P. Kesler, Cost, \$23,000.

Richwood—Archts. Holmboe & Lafferty, Clarksburg, have plans for the erection of new school, Richwood independent school district. D. H. Frye, Cost, \$5,000.

WISCONSIN.

Hartford—Contract has been let for high school. Cost, \$49,000.

Fond du Lac—School board will erect a 2-story structure.

Menomonie—Plans are being drawn for a \$60,000 school building. Bids will be advertised for soon.

River Falls—Normal school will be built. Van Ryn & De Gelleke, Archts., Milwaukee. Cost, \$110,000.

Fond du Lac—Archts. Perkins, Fellows & Hamilton, Chicago, have plans for 3-story east side school, containing assembly and classrooms and gymnasium.

Oshkosh—\$104,800 will be spent in next two years for improvements on the Superior normal school.

Milwaukee—Proposals received July 14 for the construction of the Riverside High School. Frank M. Harbach, secy.

Madison—Bonds, \$60,000, have been issued for the Hawthorne school.

Oshkosh—Archt. Wm. Walter has plans for 3-story Catholic high school, St. Peter's congregation. Cost, \$35,000.

Linden—Proposals received July 26 for erecting a high school, Joint Dist. No. 1. H. T. Liebert, Archt., Antigo. John W. Taylor, clk.

Forestville—A 2-story addition will be built to present school.

Lena—Bids received July 2 for building a 2-room schoolhouse, Dist. No. 4. Gus Wickenberg, clk.

Franklin—One-story school will be built. Joint Dist. No. 2. C. H. Tegen, Archt., Manitowoc.

Janesville—The legislature has appropriated \$41,000 for improvements for the state institute for blind students.



Registered in U. S. Patent Office

"MAKE IT GOOD"

That is why an "Eagle" pencil not only does its work faultlessly but wears well under hard usage.

No. 315 "Veriblack," for Drawing.

Samples free to Superintendents, Principals and Teachers


377-379 Broadway EAGLE PENCIL CO. NEW YORK

EBERHARD FABER

No. 293

"FINE WRITING"

PENCIL



Round Green Polish, with a Lead of splendid quality in four grades. No. 1-Very soft; No. 2-Soft; No. 3-Medium hard; No. 4-Hard

NO BETTER PENCIL FOR SCHOOL USE

EBERHARD FABER, New York

A Spelling Lesson.

A country politician, according to the Saturday Evening Post, was elected school commissioner. One day he visited a school and told the teacher he desired to examine the boys and girls.

A spelling class was performing; so the commissioner said he would inquire into the proficiency of that organization. The teacher gave him a spelling book and the students lined up in front of the mighty educator.

He thumbed the book. Then, pointing at the first boy, he said, "Spell eggpit."

"E-g-g-p-i-t," slowly spelled the boy.

"Wrong," said the commissioner, and pointing to the next boy: "You spell eggpit."

"E-g-g-p-i-t," spelled the boy.

"Wrong. You spell it."

The next boy spelled it the same way, and the next and the next.

"Bad spellers, these," commented the commissioner to the distressed teacher.

"Why, Mr. Commissioner," she protested, "they have all spelled eggpit correctly."

"They have not."

"Will you let me see the word in the book?" the teacher asked tearfully. "I am sure they have."

"Here it is," said the commissioner, and he pointed to the word "Egypt."

Blank Pages.

"There is no title for a book that it is possible for a man to suggest," said the learned professor, "on which it would not be possible for any scholar to write a volume of several hundred pages."

"Will you kindly tell me," said the meek little father of ten, "just what you would put in a volume entitled, 'Questions That Children Have Never Asked?'"—*Judge.*

Aus der Schule.

"Hartmann was haben Sie da?"

"Nichts, Herr Professor."

"Dann legen S' es weg."



Following the Good Example.

—*Harper's Monthly.*



When a Feller Needs a Feller.

—*Briggs, Chicago Tribune.*

The teacher had finished a lecture on Tom's conduct.

"There! I have made myself plain. Have I not?"

"No ma'm," said Tom. "I guess you were born that way."

His Question.

A certain school principal was very busy. Into the office came a tiny, eager-faced lad who respectfully asked leave to put "an important question."

"I've studied and studied about it, and I can't find any answer in the books," he explained.

"All right, John," replied the principal. "Go ahead."

And this was John's problem:

"Please tell me, if you had fleas on you and you had a shock of electricity sufficient to kill you, would it kill the fleas?"

"Well, Maggie," asked a reproving grade teacher of a tardy pupil, "what makes you so late this morning?"

"Please, teacher, we have a new baby at our house."

"Oh, have you? And, of course, you are all very pleased about it."

"Well, I dunno, teacher; father doesn't know yet, 'cause he isn't home. It's a good thing," in meditative afterthought, "that mother was, for if she hadn't been I wouldn't have known what to do with the tiny kid at all."

Another teacher, testing a class in vulgar fractions, asked whether one-half or eight-sixteenths of an orange

would be generally preferred. All but one little fellow declared that the two were equal. The class exception supported his stand by announcing:

"The reason that I should take the orange cut in half would be because if cut into such little pieces as eight-sixteenths we would lose all the juice."

The house in Portland, Me., where Longfellow was born is now a tenement in the poorer part of the city. A little while ago a Portland school-teacher was giving her class a lesson on the life of the poet. Her talk finished, she began to ask questions.

"Where was Longfellow born?" was the first question.

The answer did not surprise the children, well acquainted with the situation, but it gave the teacher a shock.

"In Patsy Magee's bedroom," cried several children as one.

A Boy's Choice.

Robert Underwood Johnson, the well-known poet and editor, once declared that New York as a literary center is ridiculous—that nowhere in this country is poetry more appreciated than in Boston, and nowhere less than in New York.

"In fact," said Mr. Johnson afterward, "New York's love of poetry is about equal to a school-mate's love of languages."

"In my sophomore year at Earlham this lad was visited by his mother.

"Well, my dear," she said to him, "what languages have you decided to take up here?"

"I have decided to take up Pictish," he replied.

"Pictish? said his puzzled mother. Why Pictish?"

"Only five words of it remain, said he."

Not Her Quarrel.

The fact that corporal punishment is discouraged in the public schools of Chicago, says a writer in the Youth's Companion, led Bobby's teacher to address this note to the boy's mother:

"Dear Madam. I regret very much to have to tell you that your son Robert idles away his time, is disobedient, quarrelsome, and disturbs the pupils who are trying to study their lessons. He needs a good whipping, and I strongly recommend that you give him one. Yours truly, Miss Blank."

To this Bobby's mother responded as follows:

"Dear Miss Blank. Lick him yourself. I ain't mad at him. Yours truly, Mrs. Dash."

A new practice teacher in a model school where the children had heard and overheard much talk about methods was trying to question her pupils inductively. Imagine her state of mind when a wise little lass made this reply:

"I know what you want me to say, Miss Blank, but that question won't bring it."

The Curriculum.

"Do they study the three R's in your son's college?"

"Yes. Revelry, relaxation, rot."—*Life.*

YOU WILL BUY READERS for Fall supplies. Here is a SUPERIOR series for quality, quantity, price.

ELSON PRIMARY SCHOOL READERS — Investigate them.

SCOTT, FORESMAN AND COMPANY

923 So. Wabash Ave., Chicago 460 Fourth Ave., New York

Martin's

Diplomas

Intentionally Good

SEE our attractive line of engraved designs for any kind of school. The quality does not suffer by comparison. For samples and prices address

MARTIN DIPLOMA COMPANY

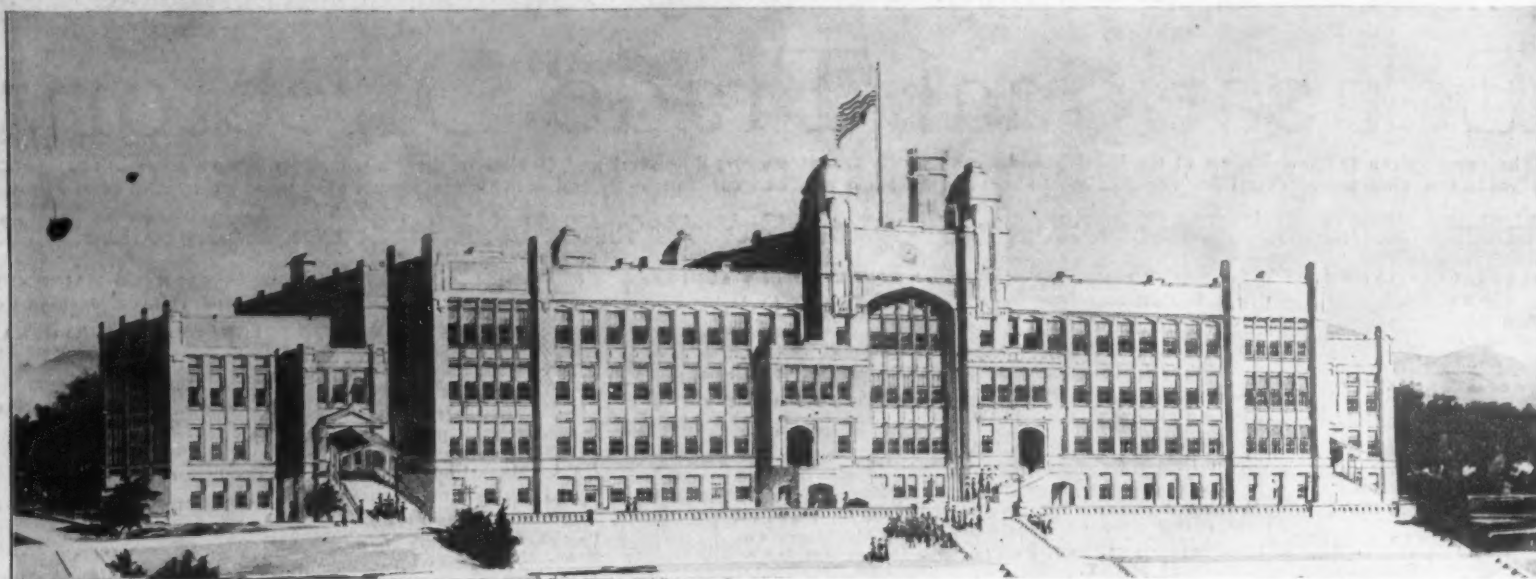
Boston, Mass. Educational Building New York City

Educational Trade Directory

The names given below are those of the leading and most reliable Manufacturers, Publishers and Dealers in the United States. None other can receive a place in this Directory. Everything required in or about a schoolhouse may be secured promptly and at the lowest market price by ordering from these Firms.

ADJUSTABLE WINDOW SHADES. Oliver C. Steele Mfg. Co. L. O. Draper Shade Co. Fuson Adj. Shade Co. ART MATERIALS. Binney & Smith. Eagle Pencil Co. Milton Bradley Co. American Crayon Co. Devoe. The Prang Co. ATHLETIC FIELD APPARATUS. Fred Medart Mfg. Co. W. S. Tothill. A. G. Spalding & Bros. AUDITORIUM LIGHTING. Kansas City Scenic Co. AUDITORIUM SEATING. Peckham, Little & Co. Haney School Furniture Co. Peabody School Furniture Co. E. W. A. Rowles. Beckley-Cardy Co. American Seating Co. Peter & Volz Co. A. H. Andrews Co. AUDITORIUM SCENERY. Kansas City Scenic Co. BLACKBOARDS—COMPOSITION. N. Y. Silicate Book Slate Co. American Seating Co. Beckley-Cardy Co. E. W. A. Rowles. A. H. Andrews Co. BLACKBOARDS—NATURAL SLATE. Albion Bangor Slate Co. Alpha Slate Company. Crown Slate Company. Diamond Slate Company. Excelsior Slate Company. Granville Hahn. Hamman Structural Slate Co. William Harding & Co. E. J. Johnson. Keenan Structural Slate Co. Leigh Structural Slate Mfg. Co. North Bangor Slate Co. Parsons Bros. Slate Co. Penna. Structural Slate Co. Pennsylvania Blackboard Co. Phoenix Slate Company. Stephens-Jackson Co. M. L. Tinsman & Co. J. F. Unger Slate Co. Thomas Zellner. BOOK COVERS. Holden Patent Book Cover Co. National Book Cover Co. University Pub. Co. BOOK DEALERS. Keystone Book Co. Baker & Taylor Co. BOOK PUBLISHERS. Amer. Academy Med. Press. A. J. Barnes Pub. Co. Ginn & Co. D. C. Heath & Co. Macmillan Co. Phonographic Inst. Co. Isaac Pitman & Sons. The Prang Co. Scott, Foresman & Co. Silver, Burdett & Co. Christopher Sower Co. J. B. Lippincott Co. University Pub. Co. P. P. Simmons, Inc. Rand McNally & Co. E. P. Dutton & Co. CHARTS. Peckham, Little & Co. American Seating Co. Milton Bradley Co. McConnell School Supply Co. E. W. A. Rowles. A. J. Nystrom & Co. Beckley-Cardy Co. A. H. Andrews Co. CRAYONS. Binney & Smith. National Crayon Co. American Crayon Co. E. W. A. Rowles. (Dealers.) American Seating Co. Eagle Pencil Co. The Prang Co. N. Y. Silicate Book Slate Co. Virginia School Supply Co. McConnell School Supply Co. Columbia School Supply Co. Beckley-Cardy Co. A. H. Andrews Co. CUPOLAS. Orr & Lockett Hdw. Co. DEAFENING QUILT. Samuel Cabot. DEODORIZERS. West Disinfecting Co. American Sanitary Products Co. DIPLOMAS. Martin Diploma Co. DISINFECTANTS. American Sanitary Products Co. West Disinfecting Co. DOMESTIC SCIENCE EQUIPMENT. Orr & Lockett Hdw. Co. DOMESTIC SCIENCE TABLES. Grand Rapids Hand Screw Co. E. H. Sheldon & Co. Columbia School Supply Co. Orr & Lockett Hdw. Co. Kewaunee Mfg. Co. DOMESTIC SCIENCE STOVES. Geo. M. Clark & Co. Grand Rapids Hand Screw Co. Orr & Lockett Hdw. Co. DRAFTING ROOM FURNITURE. Grand Rapids Hand Screw Co. E. H. Sheldon & Co. DRINKING FOUNTAINS. Mahoney Fountain Co. L. Wolff Mfg. Co. Jas. B. Clow & Sons. N. O. Nelson Mfg. Co. Rundle-Spence Mfg. Co. Hamrick-Tobey Co. Murdock Mfg. & Supply Co. ERASERS. E. W. A. Rowles. FIRE ESCAPES. Dow Wire & Iron Works. FIRE EXIT LATCHES. Vonnegut Hdw. Co. FIRST-AID CABINETS. Hess Warming & Ventilating Co. FLOOR DEAFENING. Samuel Cabot. FORGES. Buffalo Forge Co. Oliver Machinery Co. Orr & Lockett Hdw. Co. FUMIGATORS. De Free Chemical Co. FURNITURE. American Seating Co. Columbia School Supply Co. Peabody School Furniture Co. Haney School Furniture Co. Peter & Volz Co. E. W. A. Rowles. Beckley-Cardy Co. A. H. Andrews Co. GENERAL SCHOOL SUPPLIES. Peckham, Little & Co. N. Y. Silicate Book Slate Co. Binney & Smith. Virginia School Supply Co. McConnell School Supply Co. Columbia School Supply Co. American Seating Co. E. W. A. Rowles. Beckley-Cardy Co. Keystone Book Co. Peter & Volz Co. L. A. Murray & Co. A. H. Andrews Co. GLOBES. Rand McNally & Co. A. J. Nystrom & Co. GYMNASIUM APPARATUS. Fred Medart Mfg. Co. W. S. Tothill. A. G. Spalding & Bros. HEATING ENGINEERS. Lewis & Kitchen. RURAL SCHOOL HEATERS. Virginia School Supply Co. INK—DRY. E. W. A. Rowles. Peckham, Little & Co. INK WELLS. Squires Ink Well Co. U. S. Inkwell Co. Jacobus Pneumatic Inkwell Co. The Tannewitz Works. American Seating Co. JANITORS' SUPPLIES. Columbia School Supply Co. Beckley-Cardy Co. E. W. A. Rowles. A. H. Andrews Co. KINDERGARTEN SUPPLIES. Milton Bradley Co. E. W. A. Rowles. Beckley-Cardy Mfg. Co. A. H. Andrews Co. LABORATORY FURNITURE. Grand Rapids Hand Screw Co. Columbia School Supply Co. Kewaunee Mfg. Co. LABORATORY SHADE HOISTS. Paltridge Metal Equipment Co. LATHES. Oliver Machinery Co. E. H. Sheldon & Co. Crescent Machine Co. Orr & Lockett Hdw. Co. C. Christiansen. Tannewitz Works. LIBRARY SHELVING. Durand Steel Locker Co. Paltridge Metal Equipment Co. LIQUID SLATING. N. Y. Silicate Book Slate Co. McConnell School Supply Co. Haney School Furniture Co. Columbia School Supply Co. E. W. A. Rowles. Beckley-Cardy Co. A. H. Andrews Co. LIQUID SOAP. American Sanitary Products Co. West Disinfecting Co. LOCKERS. Hess Warming & Ventilating Co. Durand Steel Locker Co. Federal Steel Fixture Co. Fred Medart Mfg. Co. MACHINERY. Oliver Machinery Co. Crescent Machine Co. Orr & Lockett Hdw. Co. MANUAL TRAINING BENCHES. Grand Rapids Hand Screw Co. E. H. Sheldon & Co. Columbia School Supply Co. Economy Drawing Table Co. C. Christiansen. Orr & Lockett Hdw. Co. Richards-Wilcox Mfg. Co. A. L. Bemis. MANUAL TRAINING TOOLS AND SUPPLIES. Gage Tool Co. Grand Rapids Hand Screw Co. Oliver Machinery Co. Simmons Hdw. Co. C. Christiansen. Orr & Lockett Hdw. Co. Crescent Machine Co. Richards-Wilcox Mfg. Co. R. Murphy's Sons & Co. MAPS. McConnell School Supply Co. A. J. Nystrom & Co. Rand McNally & Co. MOTION PICTURE SUPPLIES. National Educ. Film Co. General Film Co. NATURAL SCIENCE CABINETS. Natural Science Co. PAPER TOWELS. Holden Patent Book Cover Co. American Sanitary Products Co. West Disinfecting Co. FASTS. A. S. Hoyt Co. PENCIL MANUFACTURERS. Eagle Pencil Co. Eberhard Faber. PENCIL SHARPENERS. F. H. Cook & Co. Boston Specialty Corp. PEN MANUFACTURERS. Eagle Pencil Co. PHYSICAL AND CHEMICAL APPARATUS. Columbia School Supply Co. Chicago Apparatus Co. PLAYGROUND APPARATUS. Fred Medart Mfg. Co. W. S. Tothill. A. G. Spalding & Bros. PLUMBING FIXTURES. L. Wolff Mfg. Co. James B. Clow & Sons. Lewis & Kitchen. Rundle-Spence Mfg. Co. N. O. Nelson Mfg. Co. PORTABLE SCHOOLHOUSES. Ducker Co. Mershon & Morley. Wyckoff Lumber & Mfg. Co. American Portable House Co. PRINTING SUPPLIES. Barnhart Bros. & Spindler. PROGRAM CLOCKS. Standard Electric Time Co. Landis Eng. & Mfg. Co. Hahl Autom. Clock Co. PROJECTION LANTERNS AND ACCESSORIES. Bausch & Lomb. McIntosh Stereop. Co. RELIEF GLOBES AND MAPS. McConnell School Supply Co. SANITARY ENGINEERS. Lewis & Kitchen. SEWAGE DISPOSAL. N. O. Nelson Mfg. Co. Lewis & Kitchen. Russell Sewage Disposal Co. STAGE EQUIPMENT. Kansas City Scenic Co. STATIONERY. Columbia School Supply Co. Beckley-Cardy Co. E. W. A. Rowles. McConnell School Supply Co. A. H. Andrews Co. SWEEPING COMPOUNDS. American Sanitary Products Co. West Disinfecting Co. TALKING MACHINES. Victor Talking Machine Co. TEMPERATURE REGULATION. Johnson Service Co. TOILET PAPER. American Sanitary Products Co. West Disinfecting Co. TYPEWRITERS. Remington Co. VACUUM CLEANING SYSTEMS. United Electric Co. VISES. Columbia School Supply Co. Oliver Machinery Co. Richards-Wilcox Mfg. Co. C. Christiansen. Orr & Lockett Hdw. Co. Tannewitz Works. WAGONS. C. J. Olsen & Sons. WALL DEAFENING. Samuel Cabot. WINDOW SHADE ADJUSTERS. C. I. Wimmer. R. R. Johnson. WIRE WINDOW GUARDS. L. O. Draper Co. WOODWORKING MACHINERY. Oliver Machinery Co. Crescent Machine Co. Orr & Lockett Hdw. Co. Tannewitz Works.	REFERENCE INDEX <table> <tr> <th>Page</th><th>Page</th></tr> <tr> <td>Albion Bangor Slate Co.....33</td><td>Macmillan Co., The.....6</td></tr> <tr> <td>Alpha Slate Co.....33</td><td>Mahoney Fountain Co.....57</td></tr> <tr> <td>Amer. Academy of Med. Press. 5</td><td>Martin Diploma Co.....64</td></tr> <tr> <td>American Crayon Co.....39</td><td>McConnell School Supply Co.....68</td></tr> <tr> <td>American Portable House Co..58</td><td>McIntosh Stereopticon Co.....46</td></tr> <tr> <td>Amer. Sanitary Products Co... 5</td><td>Medart Mfg. Co., Fred.....28</td></tr> <tr> <td>American Seating Co.....34 and 49</td><td>Mershon & Morley Co.....58</td></tr> <tr> <td>Andrews Co., A. H.....4</td><td>Murdock Mfg. & Supply Co.....54</td></tr> <tr> <td>Baker & Taylor Co.....56</td><td>Murphy's Sons & Co., R.....61</td></tr> <tr> <td>Barnes Pub. Co., A. J.....46</td><td>Murray & Co., L. A.....5</td></tr> <tr> <td>Barnhart Bros. & Spindler.....54</td><td>National Book Cover Co.....4</td></tr> <tr> <td>Beckley-Cardy Co.....62</td><td>National Crayon Co.....52</td></tr> <tr> <td>Bemis, A. L.....3</td><td>Natl. Educational Film Co.....43</td></tr> <tr> <td>Binney & Smith Co.....62</td><td>Natural Science Co.....28</td></tr> <tr> <td>Boston Specialty Corporation..60</td><td>Nelson Mfg. Co., N. O.....55</td></tr> <tr> <td>Bradley Co., Milton.....38</td><td>N. Y. Silicate Book Slate Co... 5</td></tr> <tr> <td>Buffalo Forge Co.....4th Cover</td><td>North Bangor Slate Co.....33</td></tr> <tr> <td>Cabot, Samuel.....4th Cover</td><td>Nystrom & Co., A. J.....48</td></tr> <tr> <td>Chicago Apparatus Co.....41</td><td>Oliver Machinery Co.....35</td></tr> <tr> <td>Christiansen, C.....1</td><td>Olsen & Sons, C. J.....50</td></tr> <tr> <td>Clark & Co., Geo. M.....46</td><td>Orr & Lockett Hdw. Co.2nd Cover</td></tr> <tr> <td>Clow & Co., J. N.....57</td><td>Paltridge Metal Equipment Co.52</td></tr> <tr> <td>Coleman, J. N.....60</td><td>Parsons Bros. Slate Co.....33</td></tr> <tr> <td>Columbia School Supply Co..51</td><td>Payne & Son, Geo. W.....00</td></tr> <tr> <td>Cook & Co., F. H.....3</td><td>Peabody School Furn. Co.....50</td></tr> <tr> <td>Crescent Machine Co., The.... 3</td><td>Peckham, Little & Co.....62</td></tr> <tr> <td>Crown Slate Co.....33</td><td>Pennsylvania Blackboard Co..33</td></tr> <tr> <td>De Free Chemical Co.....5</td><td>Penna. Struct. Slate Co.....1</td></tr> <tr> <td>Devoe & Reynolds.....38</td><td>Permanent Educ. Exhibit Co..58</td></tr> <tr> <td>Diamond Slate Co.....33</td><td>Peter & Volz Co.....47</td></tr> <tr> <td>Dow Wire & Iron Works.....62</td><td>Phoenix Slate Co.....33</td></tr> <tr> <td>Draper Shade Co., Luther O...61</td><td>Phonographic Institute Co.....46</td></tr> <tr> <td>Ducker Co.....59</td><td>Pitman & Sons, Isaac.....44</td></tr> <tr> <td>Durand Steel Locker Co.....36</td><td>Prang Co., The.....50</td></tr> <tr> <td>Dutton & Co., E. P.....44</td><td>Rand, McNally & Co.....44</td></tr> <tr> <td>Eagle Pencil Co.....64</td><td>Remington Typewriter Co.....42</td></tr> <tr> <td>Economy Drawing Table Co...60</td><td>Richards-Wilcox Mfg. Co.....3</td></tr> <tr> <td>Excelsior Slate Co.....33</td><td>Rowles, E. W. A.....59</td></tr> <tr> <td>Faber, Eberhard.....64</td><td>Rundle-Spence Mfg. Co.....57</td></tr> <tr> <td>Federal Steel Fixture Co.....61</td><td>Russell Sewage Disposal Co...60</td></tr> <tr> <td>Felt & Co., J. H.....62</td><td>Scott, Foresman & Co.....64</td></tr> <tr> <td>Fuson Adjustable Shade Co...61</td><td>Sheldon & Co., E. H.....63</td></tr> <tr> <td>Gage Tool Co.....5</td><td>Silver, Burdett & Co.....6</td></tr> <tr> <td>General Film Co.....43</td><td>Simmons Co., Parker P.....44</td></tr> <tr> <td>Ginn & Co.....6</td><td>Simmons Hardware Co.....52</td></tr> <tr> <td>Grand Rapids Hand Screw Co. 1</td><td>Simpson, John T.....50</td></tr> <tr> <td>Hahl Automatic Clock Co.....40</td><td>Sower Co., Christopher.....41</td></tr> <tr> <td>Hahn, Granville.....33</td><td>Spalding & Bros., A. G.....30</td></tr> <tr> <td>Hamman Struct. Slate Co.....33</td><td>Squires Inkwell Co.....56</td></tr> <tr> <td>Hamrick-Tobey Co.....62</td><td>Stand Electric Time Co.4th Cover</td></tr> <tr> <td>Haney School Furniture Co...50</td><td>Steele Mfg. Co., Oliver C.....61</td></tr> <tr> <td>Harding & Co., Wm.....33</td><td>Stephens-Jackson Co.....33</td></tr> <tr> <td>Heath & Co., D. C.....6</td><td>Streissguth-Petran Eng. Co...63</td></tr> <tr> <td>Hess Warming & Vtg. Co.....36</td><td>Tannewitz Works, The...56 & 61</td></tr> <tr> <td>Holden Patent Book Cover Co.31</td><td>Tinsman & Co., M. L.....53</td></tr> <tr> <td>Hoyt Co., Arthur S.....47</td><td>Tothill, W. S.....46</td></tr> <tr> <td>Jacobus Pneumatic Inkwell Co.50</td><td>Unger Slate Co., J. F.....33</td></tr> <tr> <td>Johnson, E. J.....33</td><td>United Electric Co., The.....45</td></tr> <tr> <td>Johnson, R. R.....61</td><td>U. S. Inkwell Co.....56</td></tr> <tr> <td>Johnson Service Co.....34</td><td>University Pub. Co.....42</td></tr> <tr> <td>Kansas City Scenic Co.....50</td><td>Victor Talking Machine Co.....27</td></tr> <tr> <td>Keenan Struct. Slate Co.....1</td><td>Virginia School Supply Co.....48</td></tr> <tr> <td>Kewaunee Mfg. Co.....37</td><td>Vonnegut Hardware Co.....52</td></tr> <tr> <td>Keystone Book Co.....60</td><td>West Disinfecting Co.....29</td></tr> <tr> <td>Landis Engineering & Mfg. Co.40</td><td>Wimmer & Co., C. I.....61</td></tr> <tr> <td>Lehigh Struct. Slate Mfg. Co.33</td><td>Wolff Mfg. Co., L.....53</td></tr> <tr> <td>Lewis & Kitchen.....60</td><td>Wyckoff Lumber & Mfg. Co..58</td></tr> <tr> <td>Lippincott Co., J. B.....44</td><td>Zellner, Thomas.....33</td></tr> </table>	Page	Page	Albion Bangor Slate Co.....33	Macmillan Co., The.....6	Alpha Slate Co.....33	Mahoney Fountain Co.....57	Amer. Academy of Med. Press. 5	Martin Diploma Co.....64	American Crayon Co.....39	McConnell School Supply Co.....68	American Portable House Co..58	McIntosh Stereopticon Co.....46	Amer. Sanitary Products Co... 5	Medart Mfg. Co., Fred.....28	American Seating Co.....34 and 49	Mershon & Morley Co.....58	Andrews Co., A. H.....4	Murdock Mfg. & Supply Co.....54	Baker & Taylor Co.....56	Murphy's Sons & Co., R.....61	Barnes Pub. Co., A. J.....46	Murray & Co., L. A.....5	Barnhart Bros. & Spindler.....54	National Book Cover Co.....4	Beckley-Cardy Co.....62	National Crayon Co.....52	Bemis, A. L.....3	Natl. Educational Film Co.....43	Binney & Smith Co.....62	Natural Science Co.....28	Boston Specialty Corporation..60	Nelson Mfg. Co., N. O.....55	Bradley Co., Milton.....38	N. Y. Silicate Book Slate Co... 5	Buffalo Forge Co.....4th Cover	North Bangor Slate Co.....33	Cabot, Samuel.....4th Cover	Nystrom & Co., A. J.....48	Chicago Apparatus Co.....41	Oliver Machinery Co.....35	Christiansen, C.....1	Olsen & Sons, C. J.....50	Clark & Co., Geo. M.....46	Orr & Lockett Hdw. Co.2nd Cover	Clow & Co., J. N.....57	Paltridge Metal Equipment Co.52	Coleman, J. N.....60	Parsons Bros. Slate Co.....33	Columbia School Supply Co..51	Payne & Son, Geo. W.....00	Cook & Co., F. H.....3	Peabody School Furn. Co.....50	Crescent Machine Co., The.... 3	Peckham, Little & Co.....62	Crown Slate Co.....33	Pennsylvania Blackboard Co..33	De Free Chemical Co.....5	Penna. Struct. Slate Co.....1	Devoe & Reynolds.....38	Permanent Educ. Exhibit Co..58	Diamond Slate Co.....33	Peter & Volz Co.....47	Dow Wire & Iron Works.....62	Phoenix Slate Co.....33	Draper Shade Co., Luther O...61	Phonographic Institute Co.....46	Ducker Co.....59	Pitman & Sons, Isaac.....44	Durand Steel Locker Co.....36	Prang Co., The.....50	Dutton & Co., E. P.....44	Rand, McNally & Co.....44	Eagle Pencil Co.....64	Remington Typewriter Co.....42	Economy Drawing Table Co...60	Richards-Wilcox Mfg. Co.....3	Excelsior Slate Co.....33	Rowles, E. W. A.....59	Faber, Eberhard.....64	Rundle-Spence Mfg. Co.....57	Federal Steel Fixture Co.....61	Russell Sewage Disposal Co...60	Felt & Co., J. H.....62	Scott, Foresman & Co.....64	Fuson Adjustable Shade Co...61	Sheldon & Co., E. H.....63	Gage Tool Co.....5	Silver, Burdett & Co.....6	General Film Co.....43	Simmons Co., Parker P.....44	Ginn & Co.....6	Simmons Hardware Co.....52	Grand Rapids Hand Screw Co. 1	Simpson, John T.....50	Hahl Automatic Clock Co.....40	Sower Co., Christopher.....41	Hahn, Granville.....33	Spalding & Bros., A. G.....30	Hamman Struct. Slate Co.....33	Squires Inkwell Co.....56	Hamrick-Tobey Co.....62	Stand Electric Time Co.4th Cover	Haney School Furniture Co...50	Steele Mfg. Co., Oliver C.....61	Harding & Co., Wm.....33	Stephens-Jackson Co.....33	Heath & Co., D. C.....6	Streissguth-Petran Eng. Co...63	Hess Warming & Vtg. Co.....36	Tannewitz Works, The...56 & 61	Holden Patent Book Cover Co.31	Tinsman & Co., M. L.....53	Hoyt Co., Arthur S.....47	Tothill, W. S.....46	Jacobus Pneumatic Inkwell Co.50	Unger Slate Co., J. F.....33	Johnson, E. J.....33	United Electric Co., The.....45	Johnson, R. R.....61	U. S. Inkwell Co.....56	Johnson Service Co.....34	University Pub. Co.....42	Kansas City Scenic Co.....50	Victor Talking Machine Co.....27	Keenan Struct. Slate Co.....1	Virginia School Supply Co.....48	Kewaunee Mfg. Co.....37	Vonnegut Hardware Co.....52	Keystone Book Co.....60	West Disinfecting Co.....29	Landis Engineering & Mfg. Co.40	Wimmer & Co., C. I.....61	Lehigh Struct. Slate Mfg. Co.33	Wolff Mfg. Co., L.....53	Lewis & Kitchen.....60	Wyckoff Lumber & Mfg. Co..58	Lippincott Co., J. B.....44	Zellner, Thomas.....33
Page	Page																																																																																																																																										
Albion Bangor Slate Co.....33	Macmillan Co., The.....6																																																																																																																																										
Alpha Slate Co.....33	Mahoney Fountain Co.....57																																																																																																																																										
Amer. Academy of Med. Press. 5	Martin Diploma Co.....64																																																																																																																																										
American Crayon Co.....39	McConnell School Supply Co.....68																																																																																																																																										
American Portable House Co..58	McIntosh Stereopticon Co.....46																																																																																																																																										
Amer. Sanitary Products Co... 5	Medart Mfg. Co., Fred.....28																																																																																																																																										
American Seating Co.....34 and 49	Mershon & Morley Co.....58																																																																																																																																										
Andrews Co., A. H.....4	Murdock Mfg. & Supply Co.....54																																																																																																																																										
Baker & Taylor Co.....56	Murphy's Sons & Co., R.....61																																																																																																																																										
Barnes Pub. Co., A. J.....46	Murray & Co., L. A.....5																																																																																																																																										
Barnhart Bros. & Spindler.....54	National Book Cover Co.....4																																																																																																																																										
Beckley-Cardy Co.....62	National Crayon Co.....52																																																																																																																																										
Bemis, A. L.....3	Natl. Educational Film Co.....43																																																																																																																																										
Binney & Smith Co.....62	Natural Science Co.....28																																																																																																																																										
Boston Specialty Corporation..60	Nelson Mfg. Co., N. O.....55																																																																																																																																										
Bradley Co., Milton.....38	N. Y. Silicate Book Slate Co... 5																																																																																																																																										
Buffalo Forge Co.....4th Cover	North Bangor Slate Co.....33																																																																																																																																										
Cabot, Samuel.....4th Cover	Nystrom & Co., A. J.....48																																																																																																																																										
Chicago Apparatus Co.....41	Oliver Machinery Co.....35																																																																																																																																										
Christiansen, C.....1	Olsen & Sons, C. J.....50																																																																																																																																										
Clark & Co., Geo. M.....46	Orr & Lockett Hdw. Co.2nd Cover																																																																																																																																										
Clow & Co., J. N.....57	Paltridge Metal Equipment Co.52																																																																																																																																										
Coleman, J. N.....60	Parsons Bros. Slate Co.....33																																																																																																																																										
Columbia School Supply Co..51	Payne & Son, Geo. W.....00																																																																																																																																										
Cook & Co., F. H.....3	Peabody School Furn. Co.....50																																																																																																																																										
Crescent Machine Co., The.... 3	Peckham, Little & Co.....62																																																																																																																																										
Crown Slate Co.....33	Pennsylvania Blackboard Co..33																																																																																																																																										
De Free Chemical Co.....5	Penna. Struct. Slate Co.....1																																																																																																																																										
Devoe & Reynolds.....38	Permanent Educ. Exhibit Co..58																																																																																																																																										
Diamond Slate Co.....33	Peter & Volz Co.....47																																																																																																																																										
Dow Wire & Iron Works.....62	Phoenix Slate Co.....33																																																																																																																																										
Draper Shade Co., Luther O...61	Phonographic Institute Co.....46																																																																																																																																										
Ducker Co.....59	Pitman & Sons, Isaac.....44																																																																																																																																										
Durand Steel Locker Co.....36	Prang Co., The.....50																																																																																																																																										
Dutton & Co., E. P.....44	Rand, McNally & Co.....44																																																																																																																																										
Eagle Pencil Co.....64	Remington Typewriter Co.....42																																																																																																																																										
Economy Drawing Table Co...60	Richards-Wilcox Mfg. Co.....3																																																																																																																																										
Excelsior Slate Co.....33	Rowles, E. W. A.....59																																																																																																																																										
Faber, Eberhard.....64	Rundle-Spence Mfg. Co.....57																																																																																																																																										
Federal Steel Fixture Co.....61	Russell Sewage Disposal Co...60																																																																																																																																										
Felt & Co., J. H.....62	Scott, Foresman & Co.....64																																																																																																																																										
Fuson Adjustable Shade Co...61	Sheldon & Co., E. H.....63																																																																																																																																										
Gage Tool Co.....5	Silver, Burdett & Co.....6																																																																																																																																										
General Film Co.....43	Simmons Co., Parker P.....44																																																																																																																																										
Ginn & Co.....6	Simmons Hardware Co.....52																																																																																																																																										
Grand Rapids Hand Screw Co. 1	Simpson, John T.....50																																																																																																																																										
Hahl Automatic Clock Co.....40	Sower Co., Christopher.....41																																																																																																																																										
Hahn, Granville.....33	Spalding & Bros., A. G.....30																																																																																																																																										
Hamman Struct. Slate Co.....33	Squires Inkwell Co.....56																																																																																																																																										
Hamrick-Tobey Co.....62	Stand Electric Time Co.4th Cover																																																																																																																																										
Haney School Furniture Co...50	Steele Mfg. Co., Oliver C.....61																																																																																																																																										
Harding & Co., Wm.....33	Stephens-Jackson Co.....33																																																																																																																																										
Heath & Co., D. C.....6	Streissguth-Petran Eng. Co...63																																																																																																																																										
Hess Warming & Vtg. Co.....36	Tannewitz Works, The...56 & 61																																																																																																																																										
Holden Patent Book Cover Co.31	Tinsman & Co., M. L.....53																																																																																																																																										
Hoyt Co., Arthur S.....47	Tothill, W. S.....46																																																																																																																																										
Jacobus Pneumatic Inkwell Co.50	Unger Slate Co., J. F.....33																																																																																																																																										
Johnson, E. J.....33	United Electric Co., The.....45																																																																																																																																										
Johnson, R. R.....61	U. S. Inkwell Co.....56																																																																																																																																										
Johnson Service Co.....34	University Pub. Co.....42																																																																																																																																										
Kansas City Scenic Co.....50	Victor Talking Machine Co.....27																																																																																																																																										
Keenan Struct. Slate Co.....1	Virginia School Supply Co.....48																																																																																																																																										
Kewaunee Mfg. Co.....37	Vonnegut Hardware Co.....52																																																																																																																																										
Keystone Book Co.....60	West Disinfecting Co.....29																																																																																																																																										
Landis Engineering & Mfg. Co.40	Wimmer & Co., C. I.....61																																																																																																																																										
Lehigh Struct. Slate Mfg. Co.33	Wolff Mfg. Co., L.....53																																																																																																																																										
Lewis & Kitchen.....60	Wyckoff Lumber & Mfg. Co..58																																																																																																																																										
Lippincott Co., J. B.....44	Zellner, Thomas.....33																																																																																																																																										

If any articles or tex.books cannot be found listed, write our Subscribers' Free Service Department, care of American School Board Journal, Milwaukee, Wis.



Eldredge & Chesebro, Architects

THE NEW SALT LAKE CITY, UTAH, HIGH SCHOOL
has positively the finest Electric Clock System in any school in America.

The "Standard" system was selected by the Board of Education in preference to all others, at a higher price.

The equipment consists of a 60-beat self-winding Master Clock, having compensating mercurial pendulum, battery gauge and six pilot dials; 1-6 circuit automatic minute interval program clock; 68-14", 19-18" and 1-24" Sienna marble dial secondary clocks with raised bronze numerals, minute dots and fancy hands; 2 tower clocks, each having dials 4', 6" in diameter; 63-2 1/4" bells and 14-16" bells.

All operated from duplicate sets of storage batteries, charged from motor generator, set with a marble charging panel, complete with voltmeter, ammeter, etc.

Write today for catalog to nearest sales office

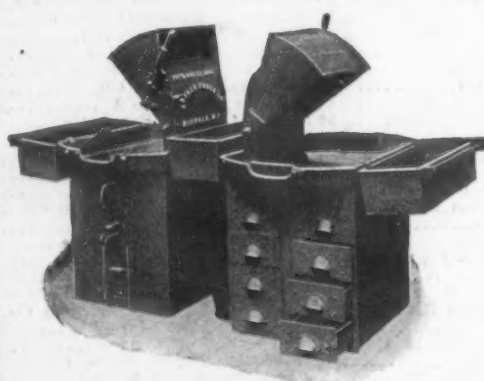
THE STANDARD ELECTRIC TIME COMPANY, SPRINGFIELD, MASS.

141 Franklin St.,
Boston, Mass.

200 Fifth Ave.,
New York, N. Y.

729 Monadnock Bldg.,
Chicago, Ill.

62 Post St.,
San Francisco, Cal.



Buffalo Down Draft Forges

are made stationary or portable. An example of the former is shown

here and of the latter below. The portable forge is completely self-contained, comprising fan which serves as a combined blower and exhauster; water tank and room for green coal on the hearth. The blower is either operated by hand or by an individual electric motor using less current than a 16 c.p. electric bulb. These portable forges are coming into use, not only in smaller schools, but also in some larger ones, as they have many practical features to commend them. Ask us for full particulars about all styles of

Buffalo Down Draft Forges which are now used by 98 per cent. of all manual training schools in the United States.



No. 680

**Buffalo Forge
Company**

Buffalo, N. Y.



Seward School, Minneapolis.

E. S. Stebbins, Arch't., Minneapolis

This building is sound-proofed with

Cabot's Deafening "Quilt,"

"the most perfect deadener made." Not a mere felt or paper, but a thick, quilted cushion which absorbs and dissipates the sound-waves. Proof against moths, vermin, and decay, and unflammable.

Special book on School-house deafening, with twenty plates of buildings, and sample of Quilt, sent on request, free.

SAMUEL CABOT, Inc. Sole Manufacturers
BOSTON, MASS., U. S. A.

1133 Broadway, New York

350 Dearborn Ave., Chicago